

# DOE ENVIRONMENTAL MANAGEMENT PROGRAM

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## HEARING BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE ONE HUNDRED SEVENTH CONGRESS SECOND SESSION

TO EXPLORE THE DEPARTMENT OF ENERGY'S PROGRESS IN IMPLEMENTING ITS ACCELERATED CLEANUP INITIATIVE AND THE CHANGES DOE HAS PROPOSED TO THE ENVIRONMENTAL MANAGEMENT SCIENCE AND TECHNOLOGY PROGRAM

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JULY 11, 2002



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## **DOE ENVIRONMENTAL MANAGEMENT PROGRAM**

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**THURSDAY, JULY 11, 2002**

U.S. SENATE,  
COMMITTEE ON ENERGY AND NATURAL RESOURCES,  
*Washington, DC.*

The committee met, pursuant to notice, at 10:01 a.m., in room SD-366, Dirksen Senate Office Building, Hon. Jeff Bingaman, chairman, presiding.

### **OPENING STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM NEW MEXICO**

The CHAIRMAN. The hearing will come to order.

The Department of Energy, of course, has a responsibility for a very large complex of research, development, testing, and production facilities that over the years have become contaminated and have generated enormous amounts of radioactive and hazardous wastes. The Department of Energy cleanup sites are located in more than half of the 50 States. The estimates for the cleanup of the Department of Energy complex have ranged to as high as a couple of hundred billion dollars and as long as 70 years. Secretary Abraham and the administration are to be commended for their commitment to accelerating this cleanup effort and completing it at far less cost to the taxpayer.

However, there are concerns that have been raised about the administration's proposed approach to accelerating the cleanup, and I for one have been concerned that the \$800 million accelerated cleanup fund proposed by the administration could be viewed as an incentive to encourage State regulators to relax site cleanup standards.

In addition, I'm uncomfortable with the idea of appropriating large sums to the Department of Energy in the absence of a firm plan for expending those funds. That is why I worked in the defense authorization bill with many of my colleagues to support requiring the Department of Energy to publish criteria that it plans to use in making its funding decisions.

The Department of Energy has also proposed to sharply reduce funding for the EM science and technology program and to transfer responsibility for more fundamental environmental research to the Department of Energy Office of Science. Clearly we need to continue to develop new technologies to improve our ability to clean up sites in the DOE complex and across the country. I am anxious to hear about the Department's plans for the EM science and technology program. That is the Environmental Management Science

and Technology Program. I hope the Department shares its views about the importance of providing new tools for the cleanup of environmental contamination.

We have some excellent witnesses and our first, of course, is our colleague, Senator Bunning, who is going to testify from the Kentucky perspective, as I understand it. Before I call on him, let me see if any of my colleagues wish to make opening statements. Senator Domenici?

Senator DOMENICI. I'd like to follow him.

The CHAIRMAN. All right. Senator Craig.

Senator CRAIG. Depending on the Senator's time, I will be happy to follow him too.

Senator BUNNING. Thank you.

The CHAIRMAN. Senator Bunning, you are up to bat.

**STATEMENT OF HON. JIM BUNNING, U.S. SENATOR  
FROM KENTUCKY**

Senator BUNNING. Thank you, Mr. Chairman. I am very pleased to have this opportunity to say a few words about the DOE's proposed accelerated cleanup initiative.

As some of my colleagues on the committee know, we've been dealing with contamination at the uranium gas diffusion plant in Paducah, Kentucky for some time now. During the 106th Congress, I was privileged enough to sit on the Energy Committee and we conducted field hearings in Paducah that brought to light the actual extent of the contamination in the work place and problems at the plant. Among other things, we discovered that after more than 5 decades of operation at the Paducah plant, there is now severe contamination from improper disposal of hazardous and radioactive material at the site. Furthermore, this contamination has been released into streams and drainage ditches and some even has made it to the Ohio River. Most importantly, workers at the plant have also been exposed to radioactive materials.

I remain hopeful that we can accelerate the cleanup at the plant as quickly as possible and do all we can to assist workers and citizens in Paducah.

Like many of you, I am skeptical about DOE's promise to accelerate the cleanup of its sites. It seems to me I have heard that song before. Despite this skepticism, however, I realize that we all must work together in good faith toward cleanup at Paducah and other sites around the country. There's the old saying that President Reagan used to quote: "trust but verify." I am willing to trust DOE to work with them, but I want to see verifiable results very, very soon.

On the surface, the DOE plan proposes to clean up Paducah on a much faster schedule than we have right now. Currently, the plant is proposed to be cleaned up by the year 2024. With the DOE's newly proposed plan, the majority could be cleaned up by 2010.

It also proposes to increase funding by as much as \$100 million for the whole project and cut out a lot of red tape and paperwork.

I appreciate this administration's new approach and commitment of accelerating the cleanup of Paducah and other contaminated sites. More funds, cooperation with the States, and a less regu-

latory approach all sound promising. This all makes me hopeful. I am not ready to fully believe it yet, but I think it is a sign we are moving in the right direction.

It is now up to the Commonwealth of Kentucky to negotiate an agreement with DOE to finally place the Paducah plant on the accelerated cleanup plan. So far our State officials have been moving very slowly on this negotiation. In fact, compared to all other site agreements DOE is negotiating around the country, Paducah is moving the slowest. We are dead last. And that means it has to change and change now. Folks in Paducah and workers at the Paducah plant deserve better. Hopefully DOE and Kentucky officials can reach an agreement by OMB's August 1 deadline, but that is only 3 weeks away and the clock is ticking.

For my part, I am going to continue to do all I can to help and to keep prodding DOE and Kentucky to move forward. It is just too important not to do it.

I want to thank you, Mr. Chairman, for allowing me to testify, and I will answer any questions that you might have.

The CHAIRMAN. Well, thank you very much for that excellent testimony. I do not have questions of you at this point. I think some may arise as we hear from other witnesses. But let me see if any of my colleagues have questions.

Senator DOMENICI. I just thank the Senator and I have none.

The CHAIRMAN. Senator Craig, did you have any questions of Senator Bunning?

Senator CRAIG. No. I think the Senator's reaction is very similar to mine: "trust but verify." I think we have been there; we have heard that. We want to make sure this happens. The budgets are big. If we can accelerate it and reduce them, it is a worthy goal.

Senator BUNNING. Thank you very much.

The CHAIRMAN. Well, thank you for your testimony today.

Let me now see if Senator Domenici or Senator Craig wish to make an opening statement before I call the witnesses.

#### **STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM NEW MEXICO**

Senator DOMENICI. Thank you, Mr. Chairman. I have a statement that is a lot longer than I would like to give. So, I will ask you to put it in the record.

The CHAIRMAN. We will include it in the record.

Senator DOMENICI. Mr. Chairman, Senators, and witnesses, just so we start off knowing that each and every year how much we're going to spend on this cleanup, whether the cleanup is progressing or not comes alive in the President's budget and in the appropriations to see if there is money to do what is planned.

I would like to open by saying I called upstairs to see how much we have spent on cleanup for the last 5 years, so no one will think that the cleanup is not getting a lot of money. We spent \$30 billion. \$30 billion on the cleanup in the last 5 years. The early years of that were just a little bit over \$4 billion, but it went up almost perpendicular for a while and then plateaued out. So, it came to an average of \$6 billion a year.

What happens is everybody that prepares a budget for the executive branch on this cleanup, when they are new and come to this

job new, is kind of astounded by the amount of money that goes in and the little progress that occurs. I am not saying that the money is not spent. It is spent, but it is spent on processes that get you nowhere in many instances. The problem is the ones that get you nowhere the fastest and cost the most are the ones where we already have agreements that we are going to do these things and even if, in fact, they do not accomplish a great deal.

So, about every 3 or 4 years, we get a suggestion from the executive branch that there is going to be a new and better approach, and there is going to be some daylight at the end of the tunnel on some of them, and some of them are going to be on an accelerated program and the like.

Each time that we get a new person to head it up, we interview them and we sing their praises. They have all been very good people. Some of them have gone on to do some very exciting things, in fact, in Government.

Some of us know Jessie Roberson. She is here in the front row. She has testified before some of us. I know her personally from her previous job, and I think you do too, Mr. Chairman. She came here full of ambition and desire and commitment. And the problem is when she takes the money that is available and says, well, what are all the jobs we have got to do, you do not have enough time to change the processes and procedures until you have to stop spending money. So, you are caught there. You need new projects. You need new programs. You need to accelerate in a different way.

But we are right here. Our subcommittee is ready with the money to appropriate the various programs. Senators are talking about not cutting programs in their State. Most of them do not cut the paychecks. There is an enormous paycheck for many parts of the country.

In fact, in one of the major ones, we have replaced—and what we have on site is a couple of cleanup contractors. And there are more people employed now than when the site was alive because, somehow or another, with all the work we have done on trying to know how to clean up in a way that is quick and that will get the job done, it seems like very few of them are working in the places that are really terrific and tough.

Colorado has got the big star, Mr. Chairman. It looks like they are able to tell us that is going to get finished on time. That is Rocky Flats. I do not think any of the other ones have completion dates that you can say you are really going to accomplish, but we can ask you that when you get up here.

So, I am more than willing here and in Appropriations to assume some new process if we can get it done. It is not going to be easy because of what I just said. But I will say this particular director is doing an outstanding job, and I think if we are going to get a new project and program in place, she will be able to do it.

Thank you, Mr. Chairman.

[The prepared statement of Senator Domenici follows:]

PREPARED STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR  
FROM NEW MEXICO

Mr. Chairman, thank you for holding this hearing on the Department of Energy's accelerated environmental cleanup programs. There can be no question that the Department's efforts to clean up the contamination left from the legacy of the nuclear

weapons program are of high priority and that faster progress is important for the nation.

When the Department first proposed the accelerated cleanup program, I expressed great concern that inadequate funds were being provided. The Department's initial request was for \$800 million in this fund, and that came off the top of existing environmental budgets. While I've heard rumors that the Department recognizes that this funding is inadequate, and plans to request a budget increase for next year, I still haven't seen such a request.

In the case of New Mexico, I was especially concerned to see significant cuts in the original budget at both Los Alamos and Sandia in their environmental programs. I spoke out then to note that these cuts were unacceptable.

I appreciate that the Department and the State have now agreed on an accelerated cleanup plan for New Mexico. Under that plan, the environmental programs are increased by \$76 million across the state, with an additional \$54 million at Los Alamos, \$8 million at Sandia, and \$14 million to WIPP.

The additional support at WIPP is especially important, given the central and vital role that it plays in the Department's cleanup programs across the nation. In New Mexico, I want to see the wastes at Los Alamos moving to WIPP as fast as possible—but there are many other sites across the nation that also are depending on quick transfers to WIPP to accomplish their own cleanup.

I want to return in my questions to the special role of WIPP and the great challenge that this accelerated cleanup presents to WIPP. The Department needs to remember that while accelerated cleanup is a tremendous benefit at many DOE sites, it can be viewed as a negative in Carlsbad, the home of WIPP.

The Carlsbad community, perhaps the most supportive community of any surrounding a DOE site, has provided superb backing for the WIPP site. But that backing was conditioned on a long term role for WIPP. Accelerated cleanup means that WIPP's mission ends sooner and jeopardizes support for WIPP. This fact must be recognized by the Department and special attention must be paid to providing Carlsbad and the surrounding area with additional missions providing longer term stability.

Again, Mr. Chairman, thank you for holding this hearing. And special thanks to Jessie Roberson for her leadership of the difficult EM program at the Department. I'll be looking forward to your testimony today.

The CHAIRMAN. Thank you.

Let me see if Senator Cantwell has any opening statement she wanted to make and then call on Senator Craig.

#### **STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON**

Senator CANTWELL. Thank you, Mr. Chairman, and thank you for holding this hearing this morning. I look forward to the testimony from both of the panels. While we do have a Judiciary mark-up going on at the same time, I am definitely going to try to be here to hear as much of the testimony from both of those panels as I can.

I think this hearing is really the results of Senator Craig and I sending a letter to the chairman asking for the review of this accelerated cleanup plan so that we can make sure that we are going in the right direction. At the time that we asked for that request, obviously our concerns were—Mr. Chairman, if I could, I do have quite a lengthy statement. I think what I will do is submit that for the record.

But at the time that this process started, we in Washington State with the Hanford Nuclear Reservation, the most contaminated nuclear site in the country, had been dealing with the same kind of things that were just articulated: I guess you would say, stops and starts and misdirection. I counted, when I finally went to the last vitrification plant ground breaking last summer, I think that was the third ground breaking that we have had at Hanford.



So, we have had many attempts through the last years to get this process right and we have spent billions of dollars doing it.

The challenge for us is that the team on the ground at Hanford seems to be making progress in getting things going in the right direction. And this year, we were given a budget proposal that really many believe could be a way to get multi-year funding, but yet cut some of the costs by doing more cleanup in a faster process. This left us with some questions about exactly what the budget was going to be and how the process for negotiating on that budget cleanup goals would proceed. Clearly we did not want the State of Washington to be held hostage to budget negotiations that would compromise cleanup standards. You know, we did not want a process in which DOE would say, "you will get so much money based on how the negotiation process plays out."

So, we still remain concerned about that. So, I look forward to hearing from both Assistant Secretary Roberson and the Attorney General from our State, Christine Gregoire, about exactly how these negotiations are going and what kind of commitments can be made as it relates to the budget.

I would like to enter into the record, Mr. Chairman, if I could, a handout—and I will give this to my colleagues here on the committee as well—of the Hanford site. It basically shows the site in our State and the actual amount of extended groundwater contaminants, and shows how that is actually growing. In fact, the iodine plume has grown significantly. Obviously, our main concern is the Columbia River and the fact that contaminants entering that river and the extension of that plume need to be addressed immediately. So, I am sure that those testifying from our State will address this in further detail.

But Mr. Chairman, I do appreciate your holding this hearing. As I said, in order to save time and get to Ms. Roberson, I will put my longer statement in the record.

The CHAIRMAN. Well, thank you very much. All of this will be included in the record.

[The prepared statement of Senator Cantwell follows:]

PREPARED STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Thank you, Mr. Chairman, for holding this important hearing on the Department of Energy's environmental management program, as well as proposed changes to the EM science and technology program.

I think this hearing has its roots in a request I made last February, along with my colleague from Idaho, Sen. Craig, on the heels of this Committee's hearing on the Department of Energy's proposed budget for Fiscal Year 2003. As you know, included in that budget was our first look at DOE's year-long, top-to-bottom review of its Environmental Management Program, as well as its proposal for accelerating nuclear waste clean-up at sites across the country.

At that time, we stated that we support the effort to clean up our nation's nuclear waste sites in a more timely and cost-effective manner. But at the same time, it was not at all clear to us how the broad recommendations and reconfiguration of priorities contained in the top-to-bottom review will impact projects at specific sites.

We were concerned about how DOE's proposal for reform will impact existing regulatory agreements with the states, as well as the accompanying Fiscal Year 2003 budget's lack of specificity on the criteria, process and timeline by which funds from the proposed \$800 million reform account would be allocated.

Since February, DOE has been working with the State of Washington and EPA to see where we can agree on plans to accelerate the cleanup the Hanford Nuclear Reservation—our nation's most contaminated nuclear site. Hanford, as you know, houses—among the many artifacts of our World War II and Cold War activities—

53 million gallons of high-level waste, stored in 177 deteriorating underground tanks next to the Columbia River. Over the past 50 years, it is estimated that some 440 billion gallons of contaminated liquids were disposed of, directly into the ground—that's like creating a lake of toxic waste 120 feet deep and as big around as the island of Manhattan, at the Hanford Reservation. We've got over 80 percent of DOE's spent nuclear fuel. We've got DOE's largest volume—or 58 percent—of the Department's high-level waste.

And we've got the largest amount—75,800 cubic meters—of buried transuranic wastes of any site within the complex.

So, Mr. Chairman, it's clear that the residents of my state of Washington have made a great contribution and shouldered far more than their fair share of this nation's nuclear burden. There are few issues as important to the environmental health and safety of the people of Washington, and the Pacific Northwest as a whole, than a safe, effective and timely cleanup of Hanford. And it's been a frustrating process.

Since we started the job, DOE first explored the option of turning our tank waste into ceramic form. That plan began in 1958 and was subsequently scrapped.

We tried again in the late 1980's. DOE planned to turn the tank waste into grout. That plan, too, was abandoned.

Then in 1998, DOE decided to try to privatize the construction of a vitrification plant. When cost overruns were projected to be too high, DOE fired the contractor in 2000.

So last fall, I attended what will be—depending on how you count it—the third or fourth groundbreaking of a plant to treat our tank waste, which has in the interim been leaking toward the Columbia River.

This history of frustration is precisely why the residents of my state are skeptical when the Department of Energy proposes yet another new way to clean up Hanford's mess. When the Department's latest initiative was unveiled, many felt it would undermine the progress we recently had begun to make, under the leadership of a very strong team in the field. Our site managers, it seemed, had begun to re-evaluate and make exactly the kind of progress that the DOE's acceleration plan seemed to envision. That's why many of us felt the decision to cut Hanford's budget for Fiscal Year 2003 was inexplicable.

Well, despite these misgivings—some of which still linger—it seems that the relationship recently forged between our site managers and regulators, as well as their collective foresight, positioned Hanford well for negotiations with DOE over its proposal to accelerate cleanup. I know that my state, DOE and EPA have been actively meeting to come to agreements where possible. Many of us are encouraged by recent reports suggesting an agreement might be reached that protects the interests of my state a faster, more efficient cleanup that in no way jeopardizes the quality of the environmental cleanup.

In addition, I know that many in Washington are heartened by the news this week that the Office of River Protection and the state have reached agreement on permitting and DOE has given the authorization to proceed with construction of the vitrification plant. We are scheduled to begin pouring concrete on July 24—months ahead of the deadline. Given the history I've already noted, this is a tremendously important step in the Hanford cleanup process.

These are indeed signs of progress. But at the same time, I hope to touch on some of the uncertainties that linger in the minds of many of my constituents. For example, when the State of Washington signed its letter of intent with the Department of Energy, there was the promise of multiple years worth of stable funding for cleanup. We have yet to see details or the numbers associated with that commitment, for this year, fiscal year 2004 or subsequent years. DOE has broken with tradition and failed to release its projected budget requests, which leaves many wondering whether the Department is writing checks it can actually cash.

Similarly, we are all anxious to get some of these underground tanks closed. And yet "tank closure" means different things to different people. It's not yet clear whether it means the same thing to the Department of Energy and the people of Washington state.

The more transparent we can make DOE's long term intentions regarding Hanford cleanup, the more confidence the citizens of Washington can instill in this accelerated cleanup process.

The point I want to emphasize today is simple: stakeholder involvement in decisions being made now and in the future is absolutely crucial in building public support and confidence in our cleanup outcomes at Hanford.

Assistant Secretary Roberson, I'm very glad to have you here today. I know you have been working extremely hard on these issues, and I look forward to your report on our progress at Hanford. I also want to welcome Washington state Attorney Gen-

eral Christine Gregoire, who will share with us later her experiences with Hanford cleanup, which extend for more than a decade now. I also want to recognize Dr. Patrinos, who I had the pleasure of meeting earlier this spring, for the dedication of the Pacific Northwest National Lab's new, world class NMR (nuclear magnetic resonance) spectrometer—a tool that will put the TriCities at the center of the coming revolution in systems biology.

Mr. Chairman, thank you for holding this important hearing today. I look forward to hearing our witnesses' testimony.

The CHAIRMAN. Senator Craig.

**STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR  
FROM IDAHO**

Senator CRAIG. Thank you, Mr. Chairman.

I appreciate Senator Cantwell's comments. We joined forces in a letter to you and I know that you were concerned and have been responsive with this hearing. It is appropriate that we do it for all the reasons that have been said by Senator Bunning, yourself, certainly Senator Domenici, and Senator Cantwell. We have been around the track too many times not to have some level of skepticism or concern for obvious reasons. The cleanup that needs to be done and the money that is being spent, whether it is to verify or whether it is has been there, done that, is a concern that all of us have. Yet, it is still a very legitimate problem in most of our States where we have this legacy.

You are going to hear from Kathleen Trever today, who is with us here, who manages the INEEL oversight program for Governor Kempthorne. Kathleen has a history similar to many who have worked on this issue. She, with her position in the State Attorney General's Office under the Batt administration, worked with the 1995 settlement agreement with DOE in the State of Idaho, a specific agreement that time-lined cleanup, one of the few that exists so specific and so detailed. And we have used that I think in the appropriate way to cause DOE and the State of Idaho to work cooperatively together on the cleanup program.

So, what we will hear today from DOE and from the State regulators I hope is a view as to where we stand and how these efforts to accelerate go on.

I appreciate the first and the continued expressions of this new Secretary of Energy when he looked at this program as we all look at it. He said why so long and why so much money. Well, I think Senator Domenici has said it. It has become a very large payroll. And that does not mean folks drag their feet, but it is a complicated process, and there is always another day and we will just move on to that next day. I think this Secretary says, no, let us get it done. And by accelerating, we in fact collapse the costs significantly in the out-years, and that should be what we are about.

So, this kind of oversight, Mr. Chairman, is appropriate. We ought to have a clear understanding of this in cooperation with this Department and with this Secretary. So, I am looking forward to the testimony of all the parties involved. Thank you.

The CHAIRMAN. Well, thank you very much.

We have five distinguished witnesses here, and let me just ask them all to please come forward and we will just hear from each of them and then have some questions. We have the Honorable Jessie Hill Roberson who is the Assistant Secretary for Environmental

Management at the Department of Energy; Dr. Ari Patrinos, who is the Associate Director for Biological and Environmental Research at the Office of Science in the Department of Energy. And then we have Attorney General Christine Gregoire, who is the attorney general of the State of Washington; Ms. Kathleen Trever, who is the State of Idaho's oversight program director for the INEEL in Idaho; and the Honorable Peter Maggiore, who is the secretary for the New Mexico Environment Department. So, we are very glad that they are all here.

Ms. Roberson, why don't you go ahead and start. We will include all of your statements in the record as if read, but if each of you could give us about 5 minutes or 6 minutes explaining the main points you think we need to be aware of, that would be very appreciated. Thank you.

**STATEMENT OF JESSIE HILL ROBERSON, ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF ENERGY**

Ms. ROBERSON. Good morning, Chairman Bingaman, Senator Cantwell, Senator Domenici, and Senator Craig. I appreciate this opportunity to discuss progress in implementing cleanup reform in the Department's environmental management program.

I am pleased to report to you today that we are making significant progress in changing our focus from risk management to risk reduction and to instilling within this program the kind of urgency necessary to achieve cleanup of the nuclear legacy of the Cold War. The comprehensive "top-to-bottom" review of this program conducted last year concluded that the program is in need of repair. More than 10 years have passed. We have spent tens of billions of dollars but have failed to demonstrate commensurate progress towards cleanup. We are determined to make changes and we are moving forward aggressively to do so.

Our focus is on improving performance of the program and on identifying and implementing more risk-oriented and efficient cleanup objectives that serve the communities around the sites and serve the taxpayers.

Our first emphasis is on bringing site cleanup plans up-to-date. Significant opportunities for innovative approaches exist. We have been pursuing a deliberative, multi-step process at each of our sites to identify actions to accelerate risk reduction, working with regulators and other stakeholders.

I am pleased to report that we have made considerable progress and reached mutual agreements on many goals, many objectives, and on the means of the new risk-based cleanup strategies. To date we have signed five letters of intent to pursue accelerated cleanup strategies at the Hanford site in Washington, the Oak Ridge Reservation in Tennessee, the Nevada Test Site, the Idaho National Engineering and Environmental Laboratory, and the Sandia and Los Alamos National Laboratories in New Mexico.

Our draft performance management plans, which lay out the details of these strategies, are currently undergoing public review and comment. And we are very close to announcing that letters of intent have been finalized for other sites.

Based on these letters and the performance plans being developed that detail the specific activities of these strategies, I am extremely pleased to report that on Monday of this week, July 8, the Secretary and the Director of the Office of Management and Budget agreed that the administration would very soon transmit to the Congress a fiscal year 2003 budget amendment supporting the environmental management cleanup reform initiatives for additional funds in an amount of up to \$300 million. This amendment is necessary to support cleanup reforms at numerous cleanup sites as evidenced by signed letters of intent between the Department, the EPA, and the State regulators.

Now that we have moved to update our cleanup plans, we must tackle the business management systems that prohibit the EM program from operating in a true performance-based means. We have begun a dedicated effort to implement changes in key areas, identified in the top-to-bottom review, that are critical to the success of the program. We will focus these activities into specific projects, each with a complex-wide perspective.

Another key component of our plans to accelerate cleanup is to use innovative technology deployments that will cut costs and save time. In order for our science and technology program to have maximum impact, we believe it needed to be streamlined and highly focused on a limited number of critical, potentially high payback activities versus a large number of activities that offer only marginal improvements. With this in mind, we are restructuring our science and technology program to ensure it is focused on meeting EM's cleanup and closure needs and supports critical, high payback activities that yield real, measurable improvements.

The transfer of the long-term basic research that has been conducted by the Environmental Management Science Program to the Office of Science is part of this restructuring. This will result in more efficient research management and better leveraging of other basic science tools within the Office of Science. EM will continue to work closely with Science as we have in the past to ensure that research supports EM's cleanup efforts and technical needs.

In conclusion, let me say that we have before us an opportunity to refocus, reshape, and transform this program. However, I believe the progress we have made so far this year and the agreements that we have reached at sites across the country on better ways to attack cleanup problems demonstrate a shared recognition that we can and must do better. I look forward to continuing to work with the Congress and others to achieve these goals.

Thank you.

[The prepared statement of Ms. Roberson follows:]

PREPARED STATEMENT OF JESSIE H. ROBERSON, ASSISTANT SECRETARY FOR  
ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF ENERGY

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to discuss the Department of Energy's Environmental Management (EM) program, our progress to date in implementing the cleanup reform initiative, and the changes we have made to refocus our science and technology efforts on our cleanup and closure mission.

I particularly appreciate the opportunity to update you on the progress we are making in reforming the EM program to re-focus efforts on our cleanup and closure mission and on accelerating risk reduction at our sites. The comprehensive, "Top-to-Bottom" review of the EM program conducted last year concluded that this pro-

gram is badly in need of repair. For more than ten years, we have spent tens of billions of dollars but have failed to achieve commensurate progress towards cleanup and risk reduction. We are determined to make changes. We are aggressively proceeding to make good on our promises to deliver more cleanup and risk reduction for the taxpayers' dollar.

Our focus is on improving the performance of the EM program and on identifying and implementing more risk-oriented and efficient cleanup approaches that serve the communities around the sites and the taxpayer. It is not our intent to avoid compliance with any of our regulatory agreements. These agreements are living documents, with processes to enable improvement and revisions to achieve mutual goals. While adopting new cleanup approaches and realigning priorities may require modification of some milestones, our efforts to work with regulators and to review the cleanup agreements must be viewed in the context of our overall efforts to reform and accelerate cleanup.

In my testimony today, I would like to update you on the current status of the cleanup reform initiative. I will then discuss the EM science and technology program.

#### PROGRESS IN IMPLEMENTING CLEANUP REFORM

Since the Top-to-Bottom review was completed, we have been working aggressively to evaluate and implement the recommendations. Initially, our emphasis has been on bringing site cleanup plans up to date. Significant opportunities for innovative approaches exist. We have been pursuing a deliberative, multi-step process at each of our sites to identify actions to accelerate risk reduction, working with regulators and other stakeholders.

The first step in the process is reaching high-level, strategic agreement with the state and U.S. Environmental Protection Agency (EPA) regulators on how the site cleanup can be accelerated. This agreement is documented in a Letter of Intent signed by DOE and the regulatory agencies that outlines the broad goals, objectives, and strategic direction for accelerated cleanup work at the site. We are also preparing a Performance Management Plan for each site that provides a detailed delineation of how the site will accelerate risk reduction and cleanup. From this Plan, we will then develop a baseline crosswalk from the current baseline to an integrated resource-loaded project baseline that EM will use to manage cleanup at the site.

Throughout the process, we have worked closely with state and federal regulators to ensure that compliance obligations are consistent with the accelerated cleanup plan. When appropriate and on a case-by-case basis, we are working with regulators to align our regulatory obligations with the cleanup approaches.

#### *Progress Toward Site Accelerated Cleanup Plans*

We have made progress in reaching mutual agreement on the goals, objectives and means of the new risk based cleanup strategy. To date we have signed five Letters of Intent to pursue accelerated cleanup strategies at the following sites:

- Hanford Site in Washington, signed on March 5, 2002
- Oak Ridge Reservation in Tennessee, signed on May 15, 2002
- Nevada Test Site, signed on May 23, 2002
- Idaho National Engineering and Environmental Laboratory, signed on May 30, 2002
- Sandia and Los Alamos National Laboratories in New Mexico, signed on May 30, 2002

We continue to work on finalizing Letters of Intent at a number of other sites. Draft Performance Management Plans for Hanford, INEEL, Oak Ridge Reservation, and the Savannah River Site have already been made available for public comment. Our goal is to have Letters of Intent and Performance Management Plans, plus commitments from the regulators to take appropriate actions for implementation, completed at most of our sites by August 2002.

#### *Taking on Cross-Complex and Internal Challenges*

Now that we have begun to update our cleanup plans, we must tackle the business management systems that prohibit the EM program from operating as a true performance-based organization. Updating the cleanup plans is an important goal. However, the ability to actually carry out the commitments in the updated plans depends on objectively and credibly adjusting the organization to reflect continuous improvement.

EM has begun a dedicated effort to implement changes in key areas identified in the Top-to-Bottom review that are critical to the success of the program. The imple-

mentation of needed changes will be addressed via a number of special project teams. Some examples of the projects include:

- Implementing performance-based contracting;
- Addressing obstacles and reducing risks from spent nuclear fuel, high level waste, and nuclear materials, faster;
- Focusing program resources on cleanup by eliminating activities that do not contribute to getting on with a risk-based cleanup; and
- Structuring an integrated, accelerated cleanup program for small sites and projects.

We have offered Federal staff from the field and headquarters the opportunity to develop proposals and apply to be project managers for these projects. We have received more than 100 proposals. A senior level EM manager will serve as an advisor to the project team. Projects will be managed in accordance with the project management principles outlined in DOE Orders. This approach is an important part of our human capital management initiative. Successful execution of these projects will eliminate many of the barriers that have thwarted previous EM attempts to accelerate cleanup and reduce life-cycle costs.

#### *Working With Regulators to Meet Our Environmental Obligations*

The cleanup at DOE's sites is subject to multiple federal and state environmental laws, implemented and enforced by multiple agencies. Like other Federal agencies, the Department must comply with requirements in these laws in the same manner, and is generally subject to the same sanctions, as a private party. In accordance with environmental laws, the Department has entered into legal agreements and orders with State and/or EPA authorities at most sites to carry out its cleanup activities or to resolve compliance issues.

Many of the agreements were negotiated ten or more years ago, when the EM program was in its early years. While reflecting the best understanding of the contamination problems and technical solutions at the time, it was recognized even then that the agreements and milestones would need to be periodically revisited and revised over time. The agreements therefore contain processes that allow the Department and the regulators that are parties to the agreements to do just that. We all recognize that adopting new cleanup approaches and realigning priorities to ensure we are addressing the highest risks first may require modification of some milestones contained in the agreements.

The regulatory agencies that implement and enforce the laws governing most of our cleanup activities are key to our efforts to reform the EM program. Without their agreement, we are hard pressed to make the changes in cleanup approaches that we believe will result in more risk reduction and accelerated progress. Without their willingness to adjust milestones when necessary to support more risk-oriented cleanup priorities or a more cost-effective approach, we may be unable to proceed no matter how compelling the alternate path.

The good news is that we have found most of our state regulators and EPA regions to be as eager as we are to achieve faster cleanup. Our efforts to work with the regulators at each of our sites over the past months to identify more effective cleanup approaches have resulted in strategic agreements at a number of our sites. We continue to make progress in developing the more detailed plans that articulate the activities and schedules for an accelerated cleanup approach.

The Department understands its obligation to comply with environmental laws and compliance agreements. We also believe it is critical that those obligations are compatible with reducing risk, as quickly and effectively as possible, and with completing the cleanup task assigned to us. We believe reform of DOE's environmental cleanup program can be achieved while meeting our environmental obligations.

#### REFOCUSING EM'S SCIENCE AND TECHNOLOGY ON CLEANUP

A component of our plan to accelerate cleanup is the use of time-, risk- and cost-saving innovative technology. In order for our science and technology (S&T) program to have maximum impact, we believe it needs to be streamlined and highly focused on a limited number of critical, potentially high payback activities versus a large number of activities that offer only marginal improvement. With this in mind, we are restructuring our S&T program to ensure it is focused on meeting EM's cleanup and closure needs and supports critical, high-payback activities that yield real, measurable improvements. To this end, S&T activities are being realigned in FY 2003 to focus on two main strategic areas: 1) providing support to closure sites; and 2) providing alternative approaches to high-risk/high-cost baselines.

In FY 2003, the EM S&T program plans to provide funds to three types of projects: those that will address specific problems that could delay closure at sites

such as Rocky Flats, Fernald and Mound; core/crosscutting technologies; and alternative technology projects which are being selected based on greatest cost and risk impacts throughout the complex. We will also provide direct "troubleshooting" technical assistance as needed throughout the year by making available expert teams from the Department's National Laboratories, universities, and industry.

In addition, to ensure site needs are being met, EM will rely on site managers to identify their own technology needs and to solicit and award contracts directly for technological solutions. To avoid duplication among sites, Headquarters will coordinate technology development solicitations and integrate site technology efforts. We believe this approach, which focuses on solving specific problems at the sites and not just developing technologies, makes effective use of investments in innovative solutions.

#### MEETING EM'S BASIC RESEARCH NEEDS

Cleanup of the DOE complex is one of the most technically challenging environmental tasks the nation has faced, and there still are environmental problems that remain intractable. To address these, we continue to need longer-term, basic research that can result in breakthrough technologies. To build a stronger scientific basis for the DOE environmental management effort, an Environmental Management Science Program (EMSP) was established in FY 1996 and has been co-managed with the DOE Office of Science (SC) to take advantage of SC's existing basic research infrastructure. Through these years of close coordination, SC has gained an enhanced understanding of EM's basic research needs and considers them in its own investments in environmental research activities.

Beginning in FY 2003, EMSP will be integrated with SC's ongoing bioremediation research program into a more comprehensive program that focuses on the science underpinning the development of long-term environmental cleanup strategies. A new Environmental Remediation Sciences Division will be formed within SC's Office of Biological and Environmental Research. This will result in more efficient research management and better leveraging of other basic science tools within SC, including its user facilities. EM will continue to work closely with SC to ensure the research supports EM's cleanup effort and technical needs.

We are confident the EMSP program's current momentum will continue as it transitions to reside in the Office of Science. The two DOE programs will continue to work closely to ensure the results are incorporated into EM cleanup operations expeditiously.

#### CONCLUSION

We have before us an opportunity to refocus, reshape and transform this program. I believe the progress we have made so far and the agreements we have reached at sites across the country on better ways to attack cleanup problems, demonstrate a shared frustration with too little progress to date, and a shared commitment to do better. I look forward to continuing working with the Congress and others to achieve our goals.

The CHAIRMAN. Thank you very much.

Dr. Patrinos, why don't you go right ahead.

#### **STATEMENT OF DR. ARISTIDES PATRINOS, ASSOCIATE DIRECTOR FOR BIOLOGICAL AND ENVIRONMENTAL RESEARCH, OFFICE OF SCIENCE, DEPARTMENT OF ENERGY**

Dr. PATRINOS. Thank you, Mr. Chairman, for the opportunity to address you and the members of the committee and to discuss what the Office of Science is doing related to environmental cleanup research.

For more than 50 years, our office and its predecessor organizations have funded basic research that is the foundation for many of the cleanup tasks. For example, the Office of Basic Energy Sciences supports the chemical sciences and the material sciences that are integral to many of the cleanup activities. The heavy element chemistry program, for example, studies the actinide elements such as uranium and plutonium that are very central to the cleanup activities.



Basic research in materials has led to the appropriate choices for containers that are used for long-term storage. Also research in hydrogeology, geophysics, and geochemistry, helps us predict how plumes move in the subsurface and suggests ways to contain those plumes.

Within the Office of Biological and Environmental Research that I have the privilege of directing, we have several efforts that serve the cleanup mission as well. We pioneered the field of radioecology, in some way taking advantage of the isotopes that were released through bomb testing and accidental release, sort of a serendipitous science, which has led to an understanding of how nutrients cycle through the environment. Much of what we do in ecological research these days is focused on the issue of climate change. However, some of the tools that have been developed through this program can help also understand environmental disruptions as they are associated with cleanup operations.

The revolutionary advances in molecular biology, as represented by the human genome project—and I would like to nod to the father of the human genome project, Senator Domenici—and the microbial genome program have also fueled promising new ways to attack the cleanup problems. In 1995, for example, we launched the natural and accelerated bioremediation research program to exploit naturally occurring microbial communities for stabilization and containment of many of the wastes that would be a lot more expensive by conventional means.

The rather recent discovery of huge microbial diversity in the subsurface suggests promising new ways for cleanup. Naturally occurring microbes, for example, like *Geobacter*, can precipitate uranium and other heavy metals from solution. We have, in fact, a field research center at the Oak Ridge National Laboratory in Tennessee where we are testing some of these ideas with some very encouraging preliminary results.

Microbial genome sequencing is a powerful new tool that has also been recruited for exploring bioremediation of wastes. We have led the way through the program in BER at our Joint Genome Institute in Walnut Creek, California, and at the Institute for Genomic Research at Maryland. Two examples are *Deinococcus radiodurans* and *Shewanella oneidensis*, which are two microbes discovered over the last 10 years and are candidates with a huge potential for cleanup. The first one can survive in extremely highly toxic radioactive environments, ticking away doing its cleanup mission, while the other can detoxify very dangerous organic compounds.

Recently we have launched a new program, Genomes to Life, which takes this basic research one step further. Starting from genomic sequence, we explore the multi-protein complexes and the regulatory networks that fuel many of these microbial cells. We characterize the computational systems that are required and also explore the microbial communities and their diversities at the various DOE sites as a prelude to implementing some of that research. Our sister office in Advanced Scientific Computing Research within the Office of Science is a partner with us in the Genomes to Life effort. The Genomes to Life program also serves DOE missions in clean energy and carbon sequestration to combat climate change.

Central to many of these activities are the scientific user facilities that we have in the Office of Science. For example, the light sources and the neutron sources, and I also would like to make a specific mention to the Environmental Molecular Sciences Laboratory at the Pacific Northwest National Laboratory with its 50-plus instruments that have been increasingly used for many of the cutting edge problems in biology and environmental research.

As you have heard from my colleague in the Office of Environmental Management, we have partnered with our colleagues in Environmental Management for many years on the Environmental Management Science Program. We have done the scientific peer review. They have done the relevance review. And we have learned a lot from each other.

This fiscal year 2003, the administration is proposing to transfer this program and the Savannah River Ecology Laboratory program to the Office of Science. They will be integrated with our science programs for the optimum leveraging that Secretary Roberson spoke of. We are committed to close cooperation with our colleagues in EM. They are at the front lines of the cleanup task and their experience will inform and educate us with respect to setting the basic science agenda.

In closing, I wish to underscore the importance of the Office of Sciences' life sciences program in support of the DOE's missions. I have given you one example. There are many others. It is one piece of a dynamic picture. Our life sciences program also plays a key role in advancing energy options and in protecting the safety and health of DOE nuclear workers and facilities through the Low Dose Program, another signature initiative that Senator Domenici has helped us launch. So, it is important that DOE maintain its strength in life sciences research in support of the Department's missions.

I am pleased to testify and available for answers. Thank you.

[The prepared statement of Dr. Patrinos follows:]

PREPARED STATEMENT OF DR. ARISTIDES PATRINOS, ASSOCIATE DIRECTOR FOR BIOLOGICAL AND ENVIRONMENTAL RESEARCH, OFFICE OF SCIENCE, DEPARTMENT OF ENERGY

Mr. Chairman and Members of the Energy and Natural Resources Committee: I am pleased to appear before this committee and to testify on what the Department of Energy's Office of Science is doing related to environmental cleanup research.

For more than fifty years the Office of Science and its predecessor organizations have funded basic research that serves as the scientific foundation for many of the cleanup tasks that are currently under way or are in the planning stage. I would like to present some examples of this research and also describe some of our plans for the fiscal year 2003 and beyond.

The Basic Energy Sciences program supports the research in chemical and material sciences that serves many of the Department of Energy's cleanup needs. For example, the Heavy Element Chemistry program supplies the knowledge base for the actinide elements, including uranium and plutonium that are the focus of cleanup activities. Knowledge gained about how these elements behave in the environment helps us design the appropriate processes for containing them in underground plumes as well as for devising appropriate systems to isolate them in waste tanks. The widely used TRUEX process, developed at Argonne National Laboratory over 20 years ago, grew out of this basic research program and is used to reduce high-level radioactive waste to one percent of its original concentration.

Basic research in materials has led to the appropriate choices for containers that are used for the long-term storage of radioactive contaminants at the Department's sites. For example, a 20-year collaboration between the University of Michigan and the Pacific Northwest National Laboratory has led to the discovery that gadolinium

zirconate, a man-made, radiation resistant, crystalline ceramic made from gadolinium, zirconium, and oxygen, can resist radiation for thousands of years and can be used for long-term storage containers. In addition, fundamental research in hydrogeology, geophysics, and geochemistry is providing us with the modeling capability to predict the movement of underground plumes and their interactions with the subsurface environment.

Within the Biological and Environmental Research program that I have the privilege of directing, we have several efforts that directly and indirectly serve the Department's long-term cleanup needs. Our program pioneered the field of radioecology by studying the isotopes that had been released into the environment, through bomb testing and accidental releases, to quantify the cycling and fate of nutrients in ecological systems. This research led to an understanding of the transport of radioactive materials (and other hazards) released near the ground. In addition, this research revealed how clouds scavenge radionuclide (and other particles) and then deposit them in rain, resulting in the global transport of materials. This research revolutionized modern fields of ecology and environmental sciences including climate change research and the effects of climate change on ecosystems. Ecological research continues in the Office of Science with primary focus on the impacts of climate change and other environmental disruptions such as those related to the cleanup operations.

The revolutionary advances in molecular biology, as represented by the Human Genome project and the Microbial Genome program, have also fueled promising new ways to attack the waste cleanup problem. For example, in 1995 the Natural and Accelerated Bioremediation Research program began developing innovative new ways to exploit naturally occurring microbial communities for stabilization and containment tasks that are either impossible or too expensive to achieve using more conventional means.

Bioremediation is one of the most promising applications of biotechnology research. The discovery of the huge diversity of microorganisms in subsurface environments has created exciting new possibilities for cleanup. Naturally occurring microbes, such as *Geobacter* can actually precipitate uranium and some heavy metals out of solution and thus show great potential for waste cleanup at the Department's contaminated sites. The Office of Science has established a field research center at the Oak Ridge National Laboratory where we are experimenting with such approaches.

Microbial genome sequencing is a powerful new tool that has been recruited for exploring the potential of bioremediation. We have led the way in microbial genome sequencing, for example at our Joint Genome Institute in California and The Institute for Genomic Research in Maryland. *Deinococcus radiodurans* and *Shewanella oneidensis* are two examples of microbes with tremendous potential for bioremediation. The first can thrive in extremely high levels of radiation while assisting in cleanup and the second can detoxify organic compounds and heavy metals.

Our newest initiative, "Genomes to Life," takes our basic research one step further. Starting with genomic sequences, we explore the multi-protein complexes and regulatory networks within cells that drive the microbes' complex functions. We characterize the microbial communities at the various sites and build the computational infrastructure to process and analyze the vast amounts of data that will be acquired. The Advanced Scientific Computing Research program, within the Office of Science, is a close partner in the "Genomes to Life" effort, which will serve the Department's missions in environmental remediation, clean energy, and carbon sequestration to combat climate change.

Central to the basic research enterprise, including the research that underpins cleanup, is the network of scientific user facilities operated by the Office of Science. Noteworthy are the synchrotron light sources at the Argonne, Brookhaven, and Berkeley National Laboratories and at the Stanford Synchrotron Radiation Laboratory. Also important to cleanup efforts are the Environmental Molecular Sciences Laboratory at the Pacific Northwest National Laboratory, in Washington State, and super-computing facilities at several National Laboratories.

All the research programs of the Office of Science, as well as the operations of our scientific user facilities, are subjected to the highest level of rigor in peer review and evaluation. The scientific community provides expert advice through our chartered advisory committees and through committees of the National Research Council and other bodies, enabling us to stay at the cutting edge of the scientific enterprise.

For several years we have partnered with our colleagues in the Office of Environmental Management to jointly implement the Environmental Management Science Program. The Office of Science has taken the lead in conducting the scientific peer review of the submitted proposals while our Environmental Management colleagues

have led the review of the relevance of the proposed work to the needs of cleanup operations. As a result of this long-term collaboration, we will jointly fund two new projects to test the efficacy of using bioremediation to stabilize and contain specific metal and radioactive contaminants at the Hanford site in Washington and at one of the uranium mine tailing sites in Colorado.

The Administration is proposing the transfer of the Environmental Management Sciences Program and the Savannah River Ecology Laboratory from the Office of Environmental Management to the Office of Science in Fiscal Year 2003. The consolidation of these programs with ongoing basic research activities within the Office of Science will optimize their synergism for the benefit of the Department's environmental mission.

The Office of Science is committed to continuing the close cooperation with our colleagues in Environmental Management both as we consolidate these research programs and during their implementation in the years ahead. These efforts are at the front lines of the cleanup task and the experience, knowledge, and "ownership" of the cleanup challenge will inform and educate us in our support of basic research for environmental remediation.

In closing, I wish to underscore the importance of the life sciences research programs within the Office of Science in support of the Department's missions. I have given you one example of the contributions life sciences research is making towards environmental cleanup. However, this is only one piece of a dynamic picture. Our life sciences research also plays a key role in advancing energy options and in protecting the environment and the safety and health of the Department's nuclear workers and facilities. These are but a few of the many contributions that will come from this research and why it is so important for the Department of Energy to maintain its strength in life sciences research. Thank you for the opportunity to testify before your committee and I would be delighted to answer any questions you may have.

The CHAIRMAN. Thank you very much.

Let us hear from Attorney General Gregoire at this point. Go right ahead. Thank you for being here.

**STATEMENT OF CHRISTINE GREGOIRE, ATTORNEY GENERAL,  
STATE OF WASHINGTON**

Ms. GREGOIRE. Good morning. Thank you, Mr. Chairman and members of the committee, for the opportunity to be here and testify today.

The Hanford Nuclear Reservation in the State of Washington holds more high nuclear waste than all U.S. sites combined. This highly contaminated reservation is perched on the Columbia River which is the lifeblood of the entire Pacific Northwest. 53 million gallons of highly radioactive and hazardous waste are stored in 177 aging and some leaking underground storage tanks which are within 7 miles of our river.

For the Pacific Northwest, the stakes are as clear as they are enormous. Allow me to give you a quick background.

In 1989, we signed the Tri-Party Agreement between the U.S. Department of Energy, the Environmental Protection Agency, and the State of Washington. It marked a decisive change at Hanford after decades of inaction. It was a mutual decision to clean up rather than to fence off and to spend money on fixing the problem rather than in litigation.

A second breakthrough came in 1999 when the State finally sued the Department of Energy to get the tank waste retrieval work back on schedule. A consent decree was entered in court, but most importantly a fundamental change took place and that was to deal with the worst first concept, those tanks which posed the greatest threat to human health and safety and the environment. I am

pleased to report that as of 8 a.m. yesterday morning, construction on the vitrification plant began.

I have been working on the Hanford cleanup site since the mid-1980's. In the 13 years since the Tri-Party Agreement, we have had four Presidents and six DOE Secretaries. Each administration has spent precious time and money rethinking the cleanup and each ultimately has come to the same conclusion. One, there is no quick fix. Two, it is far too easy to become distracted by paper-shuffling and ignore the real work and the real risk. Three, the Hanford cleanup is painfully expensive, and the longer we wait, the greater the cost. Four, vitrification, essentially turning liquid waste into glass logs, is the answer. Five, communication with the public is essential to us making real progress. And finally but most importantly, we must get on with the cleanup to protect public health, safety, and the environment.

It is also important to understand that years of secretive defense operations, mistrust, and poor management of the cleanup have created a volatile atmosphere among Hanford stakeholder groups. It is against that history that DOE has unveiled its suggestions for a new and accelerated cleanup strategy. Obviously, nobody is against—and in fact, everybody is in support of—accelerated cleanup. But of course, the devil is in the details, especially considering the complicated history of Hanford.

The plan, published on May 1, lacks essential details that we need to determine DOE's intent and to build public confidence. To further raise suspicions, DOE has provided the State with insufficient budget information concerning the cleanup program for the next fiscal year. As you can imagine, these developments have contributed to skepticism about what we are going to do at Hanford. So, rumors back home abound.

Hanford-watchers want to know just what DOE means by accelerated cleanup. Does it mean changing the definition of high level waste to low level waste for the purpose of allowing waste to be left in the tanks? Does it mean tons of radioactive transuranic waste will be buried at Hanford instead of being cleaned up and stored at WIPP, as Congress intended? Does it mean expanding the boundaries of the area where groundwater contamination is acceptable?

There are a lot of people with questions who want to see the details and replace the rumor with facts. So, this hearing is very healthy and we thank you for it. It fills a much-needed void in communication.

The bottom line is this. The accelerated cleanup cannot depend on a shortened yardstick of success. Washington State cannot allow the Federal Government to declare the Hanford cleanup a success by simply moving the goal line.

The State is working with DOE and its contractors on new accelerated cleanup strategies with the hope that it will present another much-needed breakthrough for this State and the Nation, but our definition of accelerated cleanup looks like this:

Cleaning up the worst first, ensuring the health and safety of the public and the environment by removing the most dangerous waste and addressing the greatest risk first.

Second, using the best science and technology available to remove, treat, store, and dispose of the waste.

Three, practicing sound management.

Four, ensuring cost effective use of the public's money.

Five, living by the law as set forth by Congress and the Tri-Party Agreement by removing, treating, storing, and disposing of the waste.

And last, communicating openly with the public, as well as State regulators, about cleanup plans, budget, and progress.

My client, the Department of Ecology, is at the table negotiating now with DOE to make sure that these standards I have just described are met. They are not there yet, but they are making good progress and I want to thank them for their hard work.

Again, I want to thank you for holding the hearing.

I have submitted for the record a more detailed written testimony that further outlines our progress and our concerns. We ask Congress to continue to monitor cleanup, to ensure that our definition of success is actually achieved. To do that, we must also have sufficient, predictable, sustainable funding to complete the cleanup.

Washington has served its Nation proudly, helping win World War II and ultimately the Cold War, sacrificing much at the Hanford site in the process. We all must work together again to clean-up the site and win the war on cleanup.

Thank you very much, Madam Chair and members of the committee.

[The prepared statement of Ms. Gregoire follows:]

PREPARED STATEMENT OF CHRISTINE GREGOIRE, ATTORNEY GENERAL,  
STATE OF WASHINGTON

Good morning, Chairman Bingaman, Senator Murkowski and Members of the Committee. Thank you for this opportunity to testify today.

The Hanford Nuclear Reservation is one of several sites comprising the Nation's former nuclear weapons production complex. The fuel fabrication, irradiation, and chemical separations processes undertaken at Hanford played a key role in producing the weapons that facilitated the end of World War II, and provided the foundation of U.S. foreign policy throughout the Cold War. Hanford thus contributed mightily toward establishing a legacy of freedom around the world.

Today, I am here to talk to you about a related, but different legacy. This legacy is characterized by the fact that the Department of Energy's (DOE's) Hanford site holds more high-level radioactive waste than all other U.S. sites combined. Hanford has 53 million gallons of highly radioactive and hazardous waste in 177 aging, leaking underground storage tanks just 7 miles from the Columbia River. An estimated 67 of these tanks have already leaked more than one million gallons of this toxic brew into the ground, and it is seeping into the groundwater that flows to the River. Hanford has nearly two thousand cesium/strontium capsules containing over 5 million curies of radiation, stored in underwater pools. And it has 2,100 tons of corroding spent nuclear fuel and sludge about 80% of the Department of Energy's inventory in leak-prone holding pools just 400 yards from the Columbia.

Of course, this is only part of the picture. But it should give you an idea of the scope of the problem. To understand the seriousness of the risk, however, you must understand that the Columbia River is nothing less than the lifeblood of Eastern Washington and the entire Pacific Northwest. Farmers use the River to irrigate crops that feed millions of Americans and people throughout the world. Shippers use it to transport agricultural products to national and international markets. The salmon and other fish that live and spawn in the river are a vital part of our heritage and economy. Families and businesses depend on the River to power homes and factories in Washington, Canada and neighboring states. Finally, the Hanford site is just yards from the last free-flowing section of the Columbia, a magnificent stretch of river of such incomparable beauty that it was recently designated as a national monument.

For the Pacific Northwest the stakes are as clear as they are enormous. We must act decisively to clean up Hanford, and to rid our children, and their children, of this legacy of environmental abuse. To be sure, completing this job has taken, and will for the foreseeable future continue to take, a monumental effort. Today, I want to share with you some of our victories in this effort, as well as the tremendous obstacles still before us.

The Department of Energy has made important progress at Hanford. After decades of inaction, the Tri-Party Agreement (TPA) between the Department of Energy, the Environmental Protection Agency, and the State of Washington marked a decisive moment at Hanford. It was a mutual decision to work together rather than fight. To clean up rather than fence off. And to spend money on fixing the problem rather than fighting in court. We made the right choices when we signed the TPA back in 1989.

Since then, the Department of Energy has moved 3.3 million tons of contaminated soil and debris inland from the shoreline of the Columbia. It has begun dismantling the nine reactors that line the River and is placing them into interim safe storage. And although it is slipping behind schedule, it has begun to move spent fuel from the large holding pools by the River's edge—the so-called k basins—to a safer, dry-storage site away from the River.

But the real watershed came in 1999 when the state finally sued DOE to get the tank waste retrieval work on schedule. That suit followed repeated delays by DOE in its program to transfer pumpable liquids from the single-shell tanks to Hanford's newer double-shell tanks, a process called "interim stabilization." The lawsuit resulted in an agreed timetable for cleanup and, so far, DOE is complying. What was most significant about the Interim Stabilization Consent Decree is that it required that DOE change its focus to deal with the worst first—those projects that would have the most immediate and important impact on protecting human health and the environment.

Despite this progress, tremendous obstacles impede our efforts to ensure a speedy and effective cleanup. I have been working on the Hanford project since 1988, so I have some perspective on those obstacles. In that time, I have seen administrations come and administrations go. And every time a new administration comes in, it wants to rethink the plan, the strategy and the funding for Hanford. That uncertainty is a major part of the problem. Moreover, it is a truly bipartisan phenomenon—it happens with Democratic and Republican administrations alike.

In 13 years since signing the Tri-Party Agreement, we've had four presidents and six Secretaries of Energy. Each administration has spent time and money rethinking the Hanford cleanup. Each ultimately came to the same conclusions:

1. There is no quick fix. It may have taken a miraculously short period of time to put Hanford on the map, but the contamination that remains from decades of nuclear weapons production will last thousands of years. It is far more difficult to put the toothpaste back in the tube than it is to let it out.
2. It is far too easy to become distracted by paper shuffling and ignore the real work, and the real risk, at hand.
3. The Hanford cleanup is painfully expensive—and the longer we wait, the more those costs mount. We have been told, time after time, that we need only to "wait for the science" to provide a cheaper, better method to deal with this waste. While we've been waiting for the science, over a million gallons of highly radioactive waste has leaked into the ground, substantially increasing the risk to human health and the environment, and making the cleanup work even more expensive and hazardous.
4. Vitrification of Hanford's high-level radioactive waste into stable glass logs is the best answer to the tank waste problem. DOE has studied this issue over and over again.
5. Communication with the public is essential to making real progress.
6. Finally, and most importantly, we must get on with the cleanup to protect public health and the environment.

So it is against this history of changing strategies that we now find ourselves considering suggestions for a "new," "accelerated" cleanup strategy. This strategy was manifested in the Department of Energy's draft "Performance Management Plan for the Accelerated Cleanup of the Hanford Site," published by DOE on May 1st of this year. Unfortunately, the plan lacked the details that we, and the public, need to discern DOE's intent on a number of critical issues.

For example, the plan did not articulate key assumptions on three key issues: 1. The extent to which DOE intends to retrieve and treat high-level radioactive waste from single-shell tanks; 2. how it plans to effectuate accelerated "closure" of the tanks; and 3. the extent to which it intends to retrieve, treat, and ship to the Waste Isolation Pilot Plant ("WIPP") transuranic wastes buried at the site. The plan also

did not reveal a disposal pathway for 1,936 cesium and strontium capsules—containing approximately 37% of the site’s total radioactivity—currently stored in water-cooled pool cells at Hanford’s Waste Encapsulation and Storage Facility (WESF).

The plan also appears to assume an expansive point of compliance for groundwater contamination. This is the point at which cleanup levels for groundwater contamination must be attained and suggests that DOE intends to leave substantially more contamination at the site than currently contemplated by the Tri-Party Agreement and more than justified under applicable regulations.

Finally, the Plan lacks any specific actions to involve stakeholders and the public in revising and implementing its strategies.

Not only does the plan raise significant questions about how much cleanup DOE really intends to do at Hanford, DOE also is providing untimely and insufficient budget information concerning the cleanup program. The Tri-Party Agreement requires that DOE inform the State of Washington and the Environmental Protection Agency of DOE’s and the President’s budget request, and its assessment of the impact the requested budget would have on DOE’s ability to meet cleanup deadlines in the Tri-Party Agreement. If appropriated funds fall short of funds needed to comply with the Tri-Party Agreement, the parties are to attempt to agree on appropriate adjustments in the work scope. Without the budget information, that dialogue simply cannot occur.

As you can imagine, these developments have contributed to great skepticism among Hanford watchers, and rumors abound. This is what the public, and frankly, I fear the Department of Energy means by accelerated cleanup:

1. Reclassifying high-level radioactive waste to low-level waste, so that it may be disposed of in-place in leaky, underground storage tanks already decades beyond their design life;
2. Leaving buried at Hanford in unlined trenches tons of radioactive transuranic waste that Congress intended be cleaned up and stored at WIPP; and
3. Moving points of compliance for groundwater contamination to make clean-up easier.

Let me be clear. Washington State will not sit back and allow the Federal government to declare the Hanford cleanup a success by simply moving the goal line. That is not “accelerated cleanup,” by our standards. We have far too much at stake to allow our legacy to be defined by how much we leave behind.

What, then, is Washington State’s vision of accelerated cleanup? It is a cleanup guided by the following principles:

1. Cleaning up the worst first. We must protect the health and safety of the public and the environment by focusing on the greatest hazards first. For example, we must safely retrieve and stabilize Hanford’s tank wastes without delay, and before catastrophe strikes.
2. Using the best science and technology available.
3. Living by the law as required by Congress. When Congress enacted the Federal Facility Compliance Act in 1992, it made clear its intent that the Federal government be required to comply with all Federal, state, and local requirements to the same extent as any private person is required to do so. DOE cleanup at Hanford must comply with applicable requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Resources Conservation and Recovery Act (RCRA), Washington’s Hazardous Waste Management Act (HWMA), and the Tri-Party Agreement, which implements the EPA’s and the State’s authority under CERCLA, RCRA, and HWMA. For example, we expect DOE to remove as much waste as technically possible from Hanford’s underground storage tanks.
4. Practicing sound management to be cost effective. All too often the rising costs of Federal compliance with environmental requirements has been blamed on the states. Washington has been incredibly patient, flexible, and creative in dealing with the Department of Energy during the thirteen years since the Tri-Party Agreement was signed. To accelerate cleanup, DOE must improve its own management and operate in a more cost-effective manner. For example, it must emphasize performance-based contracts that provide incentives to meet or beat regulatory requirements and that impose significant penalties on contractors that miss such deadlines.

DOE must use integrated, life-cycle baselines as a management tool. Use of such baselines help managers identify the resource and financial needs for projects, the interrelationship between different activities, and the consequences that changes to one aspect of the project will have on the remainder of the project.



DOE must remove unnecessary duplication and bureaucratic process from its own contract management.

5. Effectively communicating with Congress, regulators, stakeholders and other members of the public, and within DOE itself. There is great distrust of the Department of Energy, and unless DOE overcomes that distrust, it is destined for failure. First and foremost, DOE must include in the development and implementation of any accelerated cleanup plan a process for meaningful stakeholder and public participation. Further, DOE's intentions must be transparent. Decisions cannot be made on the basis of hidden or unstated assumptions. It must be a deliberative and informed process, for all involved. DOE must also improve its communications with Congress, to give the appropriators the assurance they need to provide sufficient, reliable, and stable funding to allow DOE to effectively carry out its cleanup mission. Finally, DOE must put its internal communications in order. It must strengthen communications between DOE Headquarters and operations offices, so that the local DOE officials are confident of their authority and can effectively interact with regulators, stakeholders, and the public.

These are the principles that define Washington State's expectations for accelerated cleanup at Hanford. While certainly there were things we liked about the draft the Department of Energy submitted to us on May 1, such as its proposal to accelerate vitrification of the first 10 percent of the high-level radioactive tank waste, the plan comes up short when held up to the light of Washington State's expectations for accelerated cleanup.

I have been around this block many times with DOE, but I will keep an open mind that this time will be different. As I testify to you today, my client, the Director of the Washington State Department of Ecology, and his staff are working hard with the Department of Energy, the Environmental Protection Agency, and others to try to transform DOE's draft plan into a plan that the State of Washington can accept.

I am told that progress is being made. For example, the parties are exploring ways to enhance the operation of the Hanford Waste Treatment Plant (WTP) to enable vitrification of high-level radioactive tank waste even faster than currently planned. They are identifying high-risk single-shell tanks from which waste will be retrieved sooner. They are beginning to wrestle with the difficult issues that will need to be addressed in developing plans for retrieving wastes and closing the tank farms. DOE has agreed to look at all transuranic wastes at Hanford—not just those placed there after 1970—and is working with the regulators on a process for deciding the best treatment and/or disposal approach. They are evaluating alternative disposal approaches for the highly radioactive cesium/strontium capsules at Hanford. DOE will remove from the plan unfounded assumptions regarding points of compliance for groundwater contamination in the Central Plateau of the site. The parties are working to integrate groundwater monitoring requirements of multiple regulatory schemes to improve efficiency. And finally, DOE has recommitted to incorporate cleanup decisions into the Tri-Party Agreement, which necessarily requires opportunities for public comment and participation.

The parties are attempting to reach agreement on a revised plan by July 15. If agreement is reached, the revised plan will be provided to DOE Assistant Secretary Jessie Roberson, for use with OMB and Congress, in developing a supplemental FY 2003 budget request.

They have set for themselves an ambitious schedule to work through this process. At this point, I cannot tell you whether or not they will reach agreement. My client is optimistic that they can. I am hopeful that he is right, but remain skeptical that the Department of Energy and the State of Washington have a shared vision of accelerated cleanup at Hanford. The vision will define the choices we make and, ultimately, the legacy we will leave for future generations.

Mr. Chairman, the Tri-Cities and the entire Pacific Northwest, made sacrifices to help win World War II and the cold war. We are proud of our contribution to the Nation and to the cause of freedom throughout the world. It is past time that our Nation finish the cleanup job at Hanford, and remove this significant threat to public health, the environment, and our regional economy.

Thank you for the opportunity to speak with you today.

Senator CANTWELL [presiding]. Thank you, Attorney General Gregoire.

Now we will turn to Secretary Maggiore for your comments.

**STATEMENT OF PETER MAGGIORE, SECRETARY, NEW MEXICO  
ENVIRONMENT DEPARTMENT**

Mr. MAGGIORE. Madam Chair, good morning. First I would like to thank Chairman Bingaman and the members of this committee for inviting me to attend and to present the State of New Mexico's perspective on the proposed accelerated cleanup initiative presented by the U.S. Department of Energy, specifically how they apply to the facilities in my home State of New Mexico.

As members of this committee know, the Department of Energy and its predecessor agencies have had a tremendous presence in New Mexico since the time of the Manhattan Project. New Mexico hosts a great deal of DOE activity at the Los Alamos National Laboratory, at Sandia National Laboratories, and in addition, we host the Waste Isolation Pilot Plant near Carlsbad, the Nation's only transuranic waste disposal site.

We have worked closely with every DOE administration since the inception of the environmental management program, commonly referred to as EM, to help ensure the cleanup of the legacy contamination from the nuclear weapons program. Although New Mexico does not have the magnitude of environmental contamination that is present in some of our sister States, including Washington and Colorado, Georgia and Tennessee, there is still significant legacy waste cleanup work that needs to be accomplished.

Throughout my tenure as cabinet Secretary for Environment, Department of Energy funding for the EM programs at New Mexico facilities has not been robust, particularly in comparison to DOE facilities in other States. Despite working with the Department of Energy in a collaborative common sense approach over the past several years, New Mexico DOE facilities have experienced declining EM funding. This has resulted in significant slippage in schedule for closure of legacy waste sites.

In 1998, shortly after I was appointed cabinet Secretary, my predecessor had signed onto an environmental stewardship vision with the Department of Energy and its contractors, as well as the U.S. EPA. The environmental stewardship vision stated—and I quote—"We will complete all environmental restoration and stabilization efforts and ensure long-term maintenance and monitoring programs are in place at all New Mexico DOE facilities by 2006, Sandia National Laboratories by 2001, and Los Alamos National Laboratory by 2006."

In early 2002, just 4 years after signing this vision, the DOE's projected completion rates have been extended out to 2009 for Sandia and 2040 for Los Alamos. These are 8-year and 34-year extensions, respectively. These projected time frames are unacceptable to the State of New Mexico and speak to its significant problems with the DOE's EM program. These funding inadequacies have been worsened by the President's recent budget.

The continual delays in completing New Mexico's scheduled cleanups, coupled with the obvious inadequate funding to meet the commitments at these facilities, has forced the Environment Department in New Mexico this year to change our regulatory stance. We recently issued a draft corrective action order for Los Alamos under New Mexico's authority under RCRA and plan to do the same for Sandia later this year. It is apparent to New Mexico that

virtually all of the environmental cleanup at major DOE sites are driven to some extent by compliance agreements, be they either tri-party agreements, as referred to in Idaho, consent decrees, compliance orders, or settlement agreements. Simply put, sites with these types of agreements seem more likely to receive funding from the Department of Energy headquarters. I do not feel it is appropriate for New Mexico's environment to suffer because our agency had attempted to cooperate with DOE.

As this as a background, I would like to discuss our perception of the accelerated cleanup program. First of all, the administration's proposed EM fundings were far too low. Obviously, members of this committee and Congress in general agrees with that statement and increased the level of funding for fiscal year 2002 and I thank you for doing that. The President's budget this year has roughly the same level of funding as last year, but contains additional monies for the cleanup reform account, as you have heard explained earlier.

Be assured that I do not blindly equate Department of Energy funding and program success. Accelerated cleanup challenges us to part from this money equals success paradigm. The accelerated cleanup program brings with it the unique benefit of incorporating collaboration, streamlining, and technological innovation, and I stand in full support of these added benefits.

We have provided input to the accelerated program proposal starting early this spring, and I sat in on those meetings personally. To date, we have found the process of developing these proposals helpful, and I believe it is an excellent planning exercise, one that interestingly enough allowed us to reach quick agreement between the Department of Energy, EPA, and the State on what the highest priorities were. In general, we agree with the goals and proposed time lines of these proposals, and we are understanding that these proposals continue to be reviewed by DOE headquarters.

As mentioned earlier, as part of this process, we were requested to sign a letter of intent with the Department of Energy. Interestingly, contractors for the DOE were not required to be signatories in spite of the fact that they helped develop the proposals and are expected to carry out the work. The letters of intent describe the collective commitments needed to achieve cleanup at the legacy waste sites.

Some activist groups in New Mexico have criticized the letter of intent as setting the stage for the Department of Energy to do less cleanup. I do not agree with this analysis. I view the letters of intent as a gesture to work collaboratively towards cleaning up legacy waste as quickly as possible.

The bottom line. The State of New Mexico will benefit by receiving an additional \$62 million above the President's budget. Unlike some other States where funding will not change significantly over last year's levels, New Mexico should see a substantial increase in EM money. At Sandia and Los Alamos, the combined increase is \$28.5 million, or 26 percent. I am confident that this increase in funding will make large differences at those facilities.

We do have concerns, however, as to how the Department of Energy views closure of its legacy waste facilities. Specifically, it is important that accelerated cleanup not be interpreted to mean less

cleanup. I believe I speak for many States that have DOE facilities when I say that New Mexico expects DOE to perform the maximum amount of cleanup practicable before declaring a site closed. Removal of waste and contamination from DOE sites should remain a priority.

Finally, I want to emphasize the need for a robust, long-term stewardship plan for DOE facilities. Such a plan currently does not exist, yet should be a critical element for closure of all DOE sites. New Mexico has concerns about DOE's commitment to the development and maintenance of such a plan, one that needs to be agreed upon by both State regulators and the Department of Energy. In instances where waste and contamination will remain at DOE sites, the use of federally financed, State-managed trust funds or other suitable fiscal instruments should be a critical element or tool available to the States. Such a tool would help to ensure that States have the financial resources available now and in the future to protect public health and the environment from the residual hazards.

This concludes my testimony. Thank you again for the opportunity to be here this morning.

Senator CANTWELL. Thank you, Secretary Maggiore.  
Director Trever.

**STATEMENT OF KATHLEEN E. TREVER, MANAGER,  
IDAHO INEEL OVERSIGHT PROGRAM**

Ms. TREVER. Madam Chairman and members of the committee, I too appreciate the opportunity to share with you today the State of Idaho's perspective on DOE's initiative for accelerating cleanup.

The INEEL played a key part in winning the Cold War and the commercial development of nuclear power. While we encourage the continued use of the lab's valuable assets, we also expect the Federal Government to address the site's environmental liabilities. My written statement provides more detail about those liabilities, including considerable quantities of spent nuclear fuel and plutonium-contaminated waste brought from other sites to Idaho for temporary storage. We must address these liabilities to protect Idaho's major aquifer, a key water supply for drinking and agricultural uses, as well as other parts of Idaho's environment.

INEEL has made considerable progress in addressing these liabilities, but some tough problems remain. The State and its regulatory agencies have worked with DOE to support innovative approaches and common sense cleanup requirements, changing our agreements and restructuring activities as appropriate to achieve tangible results.

In May, Idaho entered into a letter of intent with DOE and EPA to support further acceleration of cleanup, and we are involved in DOE's efforts to develop a performance plan for restructuring INEEL cleanup work. The collective desire of Congress, DOE, and States housing DOE facilities for sooner, safer, and more efficient cleanup is not new. It is one we strongly support.

For today's hearing, I would like to focus on the liabilities that remain. As we renew our commitment to more efficient cleanup through our participation in DOE's accelerated cleanup initiative, there are certain steps essential to our success.

While it is healthy to set aggressive goals for completing cleanup, we must not fool ourselves with creative accounting practices or simplistic assumptions. Earlier DOE cleanup plans reduced environmental liabilities and risks on paper, but eroded confidence in cleanup investments when some of the rosy forecasts did not prove out. We are working with DOE to provide a realistic assessment of the nature and extent of the problems to be solved.

In our press to reduce schedules and cost, we must still present investors in cleanup a clear understanding of programmatic risks, whether they involve unproven technology, regulatory assumptions, repository availability, decisions at other sites, or public challenge. We must also clearly define parameters for success that can remain consistent from one administration to the next. Keeping initiatives on track requires both dependable, sufficient funding, and management support.

The state of EM's science and technology program causes us some concern. It is unclear today what criteria DOE is using to develop its environmental management priorities for science and technology investments. For example, the EM's Office of Science and Technology's latest proposed funding for fiscal year 2003 includes no INEEL projects, although such investments hold considerable potential for reducing the schedule and cost of two of the sites toughest and most costly cleanup issues, high level waste and buried plutonium contaminated waste. The estimated baselines for these projects are over 10 years and billions of dollars. If DOE does not investigate alternatives for these high risk, high cost baselines now, it will be locked into existing options to honor its commitments and keep from passing these problems on to future generations.

Some reform proposals involve transferring materials or responsibilities to other Federal programs. So, plans should recognize where costs are truly saved versus shifted elsewhere. DOE began its reform process by negotiating with sites and States fairly independently. However, plans for the INEEL, the State of Washington, the State of New Mexico, and other sites often depend on work in other places for storage, treatment, and disposal. For acceleration initiatives to succeed, DOE will have to address interdependencies among sites.

Idaho and other States have offered to serve as catalysts for collective discussions with DOE through the National Governors Association-DOE Task Force. Idaho is also committed to ensure INEEL cleanup is accelerated in a way that is compatible with the Department's larger mission objectives. DOE has agreed to develop a strategy for smoothly transferring laboratory functions from the Office of Environmental Management to other program sponsors.

In closing, Idaho remains committed to meeting our cleanup goals for the INEEL as efficiently as possible, while ensuring we preserve the laboratory's capabilities for meeting our Nation's objectives in security, energy, basic science, and environmental science.

We are all investors in successful cleanup. To succeed, we will need more than general pronouncements of schedule and cost savings. We will have to evaluate our problems, recognize uncertainties, and determine how to get the maximum return on investment:

accelerated cleanup that saves money and reduces risk. Whether it's brass tacks or sleeve-rolling that is needed, Idaho is committed to working with DOE and Congress to get the job done.

Thank you, Madam Chairman.

[The prepared statement of Ms. Trever follows:]

PREPARED STATEMENT OF KATHLEEN E. TREVER, MANAGER,  
IDAHO INEEL OVERSIGHT PROGRAM

Mr. Chairman and Members of the Committee, I appreciate the opportunity to testify before you today on the Department of Energy's accelerated cleanup initiative.

My name is Kathleen Trever. I manage the state of Idaho's program that monitors DOE activities in Idaho, and have been involved in issues related to the INEEL for over eight years.

Today, I'm going to give you a quick overview of the state's perspective on the INEEL, clearly describe the challenges the INEEL faces, and recommend seven common sense steps that should be taken to ensure proposed cleanup makes the best use of tax dollars and sets the stage for meaningful decision-making and continued progress in cleaning up our Cold War legacy.

OVERVIEW OF THE STATE'S PERSPECTIVE ON THE INEEL

One of DOE's major facilities, the Idaho National Engineering and Environmental Laboratory (INEEL) occupies land in eastern Idaho about the size of Rhode Island. Only 3% of the site's 890 square miles are used, resulting in a huge buffer zone that made the site an ideal place for developing and testing nuclear reactors.

The INEEL has been essential to the success of this country's nuclear navy. Its research made commercial use nuclear power possible.

Some of the finest scientists in the world are at the INEEL, and the laboratory is capable of developing and testing technologies that enhance our national security, the quality of our environment, and develop ways to generate, use, and conserve energy.

ENVIRONMENTAL CHALLENGES INEEL FACES

While we encourage the use of the laboratory's valuable assets, we also expect the federal government to address the site's environmental liabilities.

The first liability is waste generated during the Cold War and stockpiled at the INEEL.

The second liability is environmental contamination that resulted from historic nuclear research and development.

Waste has come to the INEEL from other sites. The damaged reactor core from Three Mile was brought to the INEEL so the nation's preeminent scientists in nuclear energy could examine it to determine what went wrong and how another such incident could be prevented. It is now stored at the INEEL.

Tens of thousands of barrels of plutonium-contaminated waste generated at the Rocky Flats Weapons site in Colorado and other facilities were brought to Idaho for "temporary storage." This waste—generated at other sites and stored at the INEEL—gives the INEEL the largest stockpile of plutonium-contaminated waste in the nation, perhaps the world.

The INEEL houses an 88-acre landfill contaminated with plutonium, other radionuclides and chemicals, and there is not yet a clear solution for cleaning it up.

Spent nuclear fuel from navy vessels and other nuclear reactors is stored at the INEEL awaiting a permanent repository.

Also stored at the INEEL is liquid and solid high-level waste, which is both hazardous and radioactive. This waste presents particularly difficult challenges. It is difficult to treat, store, transport, and dispose.

These Cold War wastes and contamination from site activities now sit atop the Eastern Snake River Plain Aquifer. This aquifer provides drinking water and supports much of Idaho's agricultural economy, including thousands of family farms, dairies, a thriving aquaculture industry.

SEVEN COMMON SENSE STEPS WE MUST TAKE FOR SUCCESSFUL, EFFICIENT CLEANUP

We need to work together to solve these problems. They present extraordinary challenges—technical, fiscal, social and political. But with the expertise we have at our national labs, they can be solved.

The state of Idaho recommends seven common sense steps for ensuring successful, efficient cleanup:

- (1) Realistically assess the nature and extent of the problem to be solved;
- (2) Clearly define parameters for success;
- (3) Adequately fund the cleanup program;
- (4) Develop the science and technology necessary for solving tough problems, some postponed for more than a decade;
- (5) Recognize where cleanup costs are truly saved versus shifted to other programs;
- (6) Coordinate decision-making and planning between states, sites, contractors, and DOE;
- (7) Ensure cleanup activities are performed in a way that protects capabilities for meeting DOE's mission objectives.

The collective desire of Congress, DOE and states housing DOE facilities for sooner, safer, and more efficient cleanup, is not new. It's an admirable goal, one we support.

The State and its regulatory agencies have worked to support innovative approaches and common sense cleanup requirements, changing our agreements and restructuring activities as appropriate over the past decade. Our goal is for on-the-ground cleanup, and we have focused on resources on achieving tangible results.

Now let me provide more details on our recommended steps for successful cleanup acceleration.

#### *1. Realistically Assess the Nature and Extent of the Problem To Be Solved*

While it's healthy to set aggressive goals for completing cleanup, we must not fool ourselves with creative accounting practices or simplistic assumptions. Earlier DOE cleanup plans have reduced environmental liabilities and risks on paper, but have not always succeeded in achieving on-the-ground results. That's why we need to realistically assess the nature and extent of the problem to be solved.

#### *2. Clearly Define Parameters for Success*

We must clearly define parameters for success, and the definition of "success" should remain consistent from one administration to the next.

DOE must provide clear, current baselines for cleanup projects and identify how certain these costs and schedules are. This would allow decision-makers and the public to evaluate whether investments in technology development, transportation system revisions, or regulatory actions are worthwhile, given potential reductions in risk, cost and schedule.

DOE has dismissed baseline plans for some of the tougher waste problems as "too conservative" or "too costly." At some point, however, we must move ahead or face continued expenditures with no results.

Cleanup initiatives should present a logical, step-based clearly identifying uncertainties for each step involved in an initiative, whether they involve unproven technology, regulatory assumptions, repository availability, decisions at other sites or public challenge.

#### *3. Adequately Fund the Cleanup Program*

Keeping initiatives on track requires both sufficient funding and management support. In some cases, accelerating cleanup is merely a matter of money—reducing the principal of our Cold War debts instead of just paying high caretaking costs. Some problems, however, require up-front, science and technology investments to eliminate roadblocks to efficient cleanup.

#### *4. Develop the Science and Technology Necessary for Solving Tough Problems That Have Been Postponed for More Than a Decade*

DOE must make a commitment to identify and develop the science and technology necessary for solving these problems. This would facilitate decision-makers' prioritization of investments and determination of appropriate funding levels.

In some cases, science and technology investments are prerequisites for successful cleanup. Other science and technology investments could produce significant efficiencies and resource savings, both at INEEL and elsewhere.

Idaho wants to avoid some of the difficulties now facing Rocky Flats and Fernald. These sites made commitments to Congress for closure in 2006, but in 2002, they still have technology needs to solve hard problems left until the end.

It is unclear today how DOE is developing environmental management priorities for science and technology. For example, DOE's latest proposal for FY2003 EM science and technology investments includes no INEEL projects, although such investments hold considerable potential for reducing the schedule and cost of two of

the site's toughest, and most costly, cleanup issues high-level waste and buried plutonium-contaminated waste.

The baseline plan for safely treating high-level waste for transport out of Idaho involves converting liquid and granular wastes to glass. Baseline estimates for high-level waste treatment and buried waste retrieval both run in the billions of dollars.

These are the types of "high risk, high payoff" projects Secretary Abraham indicated that Environmental Management's Science and Technology Program should concentrate on in the rollout of the Administration's proposed budget for FY2003, and it is unclear why DOE's plans do not include them. If DOE does not investigate alternatives now, it will be locked into existing options to honor its commitments and keep from passing these problems onto the next generation.

DOE must commit to address the tough problems that have been postponed for decades. Like Hanford and other sites, we face our greatest challenges where DOE has repeatedly postponed facing tough problems involving sizable capital investments and unproven technologies. With Hanford tank wastes and INEEL buried plutonium-contaminated waste, DOE has spent nearly a decade investing considerable sums in false starts without any on-the-ground progress. We must develop a strategy for completing these projects, and get the job done.

*5. Recognize Where Cleanup Costs Are Truly Saved Versus Shifted to Other Programs*

Accelerated cleanup plans should recognize where costs are truly saved, and not just shifted to other programs. Some reform proposals involve transferring materials or responsibilities, including long-term stewardship of environmental liabilities to other federal programs. To make sure these transfers make sense, there needs to be a full understanding of what is involved.

*6. Coordinate Decision-Making and Planning Between States, Sites, and Contractors*

DOE must coordinate decision-making and planning between states, sites, contractors, and DOE. To date, DOE has been negotiating individual site plans in a fairly isolated fashion. But many of INEEL's proposed initiatives depend on actions at other sites.

One proposal involves shipment of a larger inventory of remote-handled waste from INEEL to WIPP in New Mexico, but the repository is not yet permitted for this type of waste and depends on regulatory actions by the state of New Mexico. The INEEL plan also proposes to send usable uranium materials to other sites that may need new storage capabilities to manage them. Oak Ridge's plan involves the shipment of materials to Idaho. Some of the same Rocky Flats plutonium-contaminated waste that does not have a straightforward path to disposal is located in both Colorado and INEEL.

For acceleration initiatives to succeed, they must recognize interdependencies among sites, including treatment and storage facilities as well as repositories. It is time for DOE to engage sites and states collectively. Idaho has offered to do its part by working through the National Governors Association's DOE task force.

*7. Ensure Cleanup Activities Are Performed in a Way That Protects Capabilities for Meeting DOE's Mission Objectives*

We must also ensure that cleanup is accelerated in way that is consistent with the larger objectives of the Department as a whole. As I mentioned, the INEEL has considerable resources for meeting DOE's goals for meeting our nation's national security, energy, basic science and environmental needs. DOE must complete its cleanup at INEEL in a way that preserves these capabilities to prevent paying to rebuild them later. As we agreed in our letter of intent with DOE and EPA, the INEEL must have a strategy for ensuring the smooth transition of laboratory functions from the Office of Environmental Management to other program sponsors.

In closing, Idaho remains committed to meeting our cleanup goals for the INEEL as efficiently as possible while ensuring we preserve the laboratory's capabilities for meeting national objectives.

We are all investors in successful cleanup. To succeed, we need more than general pronouncements of schedule and cost savings; we need a clear understanding and agreement on what our problems are and how each one should be addressed. This understanding and agreement will result in a maximum return on investment: accelerated cleanup that saves money and reduces risk.

Senator CANTWELL. Thank you, Director Trever, and thank you to all the panelists from the Department of Energy and the various States here to help us in understanding what is going on with the environmental management program.



I think I would like to start with you Secretary Roberson, if I can. I obviously commend you for your personal efforts in the Hanford performance management plan, which I think is due August 1.

Ms. ROBERSON. Or sooner.

Senator CANTWELL. Or sooner. I know you spent a couple of days out in the State a few weeks ago on the progress of that. So, I am assuming by your comments you think that you will at least meet the August 1 deadline, if not before that.

Ms. ROBERSON. Absolutely.

Senator CANTWELL. There obviously are signs of progress here. Again, I applaud you for that. But at the same time, I think there are some lingering questions that my constituents have about this process. One of them has to do with the budget and the fact that we do not really know what it is. This is supposedly a process that will lead to multi-year funding commitments from DOE and a faster cleanup process, and yet we do not have commitments on what the actual numbers are going to be. I think both article 48 of the Tri-Party Agreement specifically talks about how we need to have information on DOE's commitments on the budget. And I think as part of the LOI, we also talked about the funding requirements being part of the negotiation. So, obviously it is hard for our State to negotiate if we do not know that the exact dollars are going to be there for cleanup.

So, can you commit today that we will have those numbers prior to the completion of that agreement or the August 1 deadline?

Ms. ROBERSON. Thank you, Senator Cantwell. I did have a very productive trip out, and I think we are making tremendous progress. I do believe that we will do better than the August 1 date with the performance management plan at Hanford, for both Richland and the Office of River Protection, or ORP.

I had the opportunity, while I was there, to sit down and talk with both EPA regulators, as well as State regulators, on their concerns about the specificity in the budget for both 2003 and out-years. Although I understand they have a concern that we have not laid out with specificity the proposed funding levels even for 2003, it is a part of a process. We are working very aggressively to, first, agree on the sequencing of work, the specific activities, and to attach the funding requirements to that. So, funding levels are a part of the process for development of the PMP, and it will be a part of the PMP once issued.

Senator CANTWELL. But will we get those numbers prior to it? Will the Attorney General have access to those numbers? Will I? Will other members of the Senate have access to those numbers?

Ms. ROBERSON. For fiscal year 2003?

Senator CANTWELL. Yes. Obviously, it is going to be a multiyear plan, so we would like to see the other years.

Ms. ROBERSON. The last part of the plan is to apply the funding needs to the work as defined by the performance management plan. So, you will certainly have the opportunity to see the budget as it relates to the work that we are negotiating right now. Absolutely.

Senator CANTWELL. I think you can understand the dilemma. Given last year's budget numbers and this plan, obviously we do

not want the State of Washington, or any State for that matter, to feel like they are held hostage to an agreement based on the amount of money that they are going to get. You know, if they will comply with a change in plan or philosophy, they will get X number of dollars for cleanup. So, we want to make sure in this negotiation we have the details of cleanup, and that DOE is also being frank about what the numbers are. And obviously, there is a concern.

We obviously do not want to see States pitted against each other. Washington may be the first in getting an agreement done. What does that leave for the rest of the States who have cleanup projects, and how do we make all the numbers add up if we do not know what the total amount for the program is?

Ms. ROBERSON. Senator Cantwell, I think we have tried to be very, very open on this matter, and I understand your concern. I think the true credibility for us is to ensure that the funding requirements do line up with the work, and that is the process that we have laid out and are working with the regulators on.

Senator CANTWELL. Well, we will look forward to seeing those numbers soon then.

Obviously, part of this agreement is to pursue the high level waste tank closures, to demonstrate that this can actually be done. Again, we applaud that there is the intent and interest in doing that, to showing actual progress. I think given the amount of money we have spent on Hanford cleanup in the past, it is good to show specific milestones and progress.

But again, here is an area where there could be some misinterpretation and we do not want to see misinterpretation. We want to see consensus.

On the particular issue of definition of tank waste and the tank closures, can you commit to me that DOE will abide by the obligations under the Tri-Party Agreement as to the retrieval of the high level waste in those tanks? Basically the issue is—I think the language is, DOE is obligated to retrieve no less than 99 percent and all that is technically feasible. I am obviously concerned that there may be some attempt to reclassify that waste within those tanks and then basically say that DOE does not have to commit to the 99 percent cleanup or all that is technically feasible.

Ms. ROBERSON. Well, Senator Cantwell, I had the opportunity while I was at Hanford a week and a half ago to not only visit with the regulators, but to participate in an open session discussing the specifics of the proposed performance management plan with members of the public from around the site. I have also taken the opportunity to personally review and ensure I have a clear understanding of the commitments in the Tri-Party Agreement related to this issue, as well as review the 1996 EIS and subsequent ROD. As I communicated to them when I was there—and I communicate to you—our commitment is to fulfill that obligation, and we do not believe that we have proposed anything that is not in compliance with that obligation.

Senator CANTWELL. So any kind of tank waste treatment program would comply with the Tri-Party Agreement.

Ms. ROBERSON. As you recited the specific language, that is absolutely our commitment.

Senator CANTWELL. I see my time is expired. I do have more questions, but we will turn to Senator Domenici.

Senator DOMENICI. Thank you very much, Senator.

Let me start with you, Ms. Roberson. First of all, I want to again personally thank you for taking this job.

Ms. ROBERSON. Thank you.

Senator DOMENICI. It is not easy to get somebody to do this job. It is a series of—I do not want to say failures, but certainly lack of success has been the bride of this Department for at least the last 12-15 years.

So, do I understand that what you are trying to do is you are trying to go to each site and in a sense look at what is going on there, and I guess in common, ordinary language, strike a deal that will be binding on the U.S. Government, be binding on the State or locality, and set forth a plan either for total cleanup or for a number of years what will happen in each of the succeeding years? Is that what you are trying to do?

Ms. ROBERSON. Absolutely, Senator Domenici.

Senator DOMENICI. Now, are these plans going to be different than whatever is operating now in each case?

Ms. ROBERSON. Senator Domenici, in many cases there are probably three primary changes. One specific change is that we are trying to take technologies that we have been either researching, piloting, using surrogate waste, and to actually deploy those at the sites to determine whether they will be able to play a role in actually solving the problem using real materials. We have seen opportunities specifically at the Hanford site. As a part of their negotiations, they have identified specific technologies to be evaluated as alternatives for some of the low activity waste in the tank farm. Those will be part of the focus of our science and technology program at each of the sites. The application of some of the technologies that we have been working with provides the opportunity for real improvement in our cleanup plans.

The other change is to really update our plans, to update the processes, as well as to transfer information that we have gained from site to site and apply it in places where it has not been applied.

And the last is to take a common sense approach to improving the environment. I really like the way Kathleen Trever said it—sooner, safer, and in a more efficient way. So, yes, in many cases the activities do change with the goal of rendering a strategy that results in environmental protection sooner and safer.

Senator DOMENICI. Let me just ask a couple more questions generally. When you go to work on a site, you indicated to us that you are changing the approach because, as you look at the site, what you are trying to end up with is work that is moving towards eliminating the nuclear waste not just fixing the site up to contain it. That is a very big difference from what I learned in appropriating the money for this program and here on this committee.

What if it costs a little bit more for the next 3 years to do a plan that is beginning to get rid of some of the waste but it costs more and another plan will just hold it all in place and you get a bargain? What are you going to be doing as a matter of policy with reference to those cases?

Ms. ROBERSON. You have exactly recited the choice that we believe that we all have before us—whether to make a modest but higher investment now to address some of the problems that, without that investment, will linger longer and where the environmental potential is greater. The waste is there. We still have to deal with it, and the question is do we take the actions now.

Senator DOMENICI. We will have to be funding the site. It will be permanent employment for as long as the radioactivity exists and we will just keep it there.

Ms. ROBERSON. Exactly.

Senator DOMENICI. Have you had any success in changing contracts thus far during your regime that pulled up the way it was done and the quality in comparison with saving a little bit of money and not doing as much real bona fide cleanup? Do you have any of those as examples?

Ms. ROBERSON. We do have examples of that. Our focus thus far has really been on our cleanup strategies in conjunction with our regulators, although we have also begun to undertake an evaluation of how to improve our contracts to ensure that the controls that we put in place through those contracts ensure we continue to stay focused on getting the work done.

One specific example that I know you will personally be interested in: One of the goals of our accelerated cleanup plan is to accelerate the movement of Transuranic (TRU) waste to the WIPP site, and we have been working with the Nuclear Regulatory Commission (NRC) on a proposed approach to doing that. I am excited to say that we have achieved that agreement with NRC. So, that in and of itself renders 10- to 15-year savings on that specific activity and over \$200 million compared to the way we were planning to do it. And the waste is protected and safe, and it renders the site safer sooner.

Senator DOMENICI. Let me also say for the record and for your benefit, the fact that you find a budget that cannot accomplish the goal for the year and that will have House members and Senate members through their appropriations committee or the like jumping all over you because the budget does not have enough money in it to do the job, I hope you know that this is not a new attribute that follows a President's budget into the hands of somebody who is in charge like you. Most Presidents have done that. Then we have to find the money because so many good Senators come from these States and they will not let us get out of here with an appropriation bill that has the President's number in it.

Now, you all made it worse this year because you openly said we are cutting some money, but you also said we are going to try to do a better job. But I understand you are now at some point here going to openly say you have some additional money for this piece of the function. Is that correct?

Ms. ROBERSON. Yes.

Senator DOMENICI. How much? \$300 million?

Ms. ROBERSON. Yes, sir. The Department and the Office of Management and Budget agreed on Monday.

Senator DOMENICI. Have you told us in your statement what you plan now to use that for?

Ms. ROBERSON. Well, what I told you in my statement is we are finalizing some remaining letters of intent.

Senator DOMENICI. If it is in the record, that is all we need. It is in there?

Ms. ROBERSON. Yes.

Senator DOMENICI. Is any of that going to the New Mexico plan which our environmental protection agency director is here saying imminent danger is going to occur if we do not do something quick? I am not saying I said that. He said that.

Ms. ROBERSON. I have had the opportunity to visit with Secretary Maggiore a number of times and we have been working collaboratively on the details to accelerate the cleanup of Los Alamos, and I believe the additional funding we propose is very much aligned with addressing their concerns.

Senator DOMENICI. Then I want to close my questioning by asking you this question. The New Mexico Environmental Department recently issued a finding of "imminent and substantial endangerment to human health and the environment from work at Los Alamos." The words used were "imminent and substantial endangerment to human health and the environment."

Are you aware of any risk at Los Alamos that qualifies under the dictionary definition of imminent, which is "likely or due to happen soon"? What is the Department's position with reference to that situation? Is there an environmental situation that is likely to happen soon which will cause imminent harm to human health and environment?

Ms. ROBERSON. I have asked one of my colleagues from the NNSA organization to be prepared to address that. The Department believes that there is no situation that presents an imminent danger to human health and the environment. However, we also recognize that we have a commitment to address our environmental obligations at the site.

Senator DOMENICI. Right, and we are going to try to get more money for everyone in the Appropriations Committee.

Thank you, Mr. Chairman.

Senator WYDEN [presiding]. I thank my colleague.

Senator Craig.

Senator CRAIG. Thank you, Mr. Chairman.

To all of the panelists, we thank you for being with us this morning. I think you are all sharing a diverse but collective view of a problem that we are struggling with here because all of our facilities are different and have different needs. Certainly the one at Hanford is one that I have looked at and been aware of for a substantial period of time. I recognize that ours is more complicated in some ways, less risky in others. It is not the magnitude of the problem at Hanford, but to the citizens of the State of Idaho it is every bit as imminent, as urgent, as concerning as it relates to folks in the State of Washington. Being a down-streamer is a bit different than being a down-winder I guess, but at the same time, the concerns are real.

Secretary Roberson, you revamped EM's science and technology program and propose to look at 13 environmental challenges to accelerate cleanup and closure across the EM complex. According to

the documents I have seen, none of these challenges to accelerate cleanup are connected with issues at the INEEL.

My question to you is this. It is in part a result of the EM science and technology proposed budget with the \$60 million cut in it for 2003, which in essence could result in the layoff of about 180 scientists. In your view does DOE have all of the technology it needs to address the sodium-bearing waste and buried waste at the INEEL?

Ms. ROBERSON. Senator Craig, thank you for your question. I smile only because what you have just stated is actually a real demonstration of just how open our process is and that what you have had the opportunity to view are proposals in progress but not complete.

Senator CRAIG. That is right.

Ms. ROBERSON. The two areas you cited and Kathleen Trever cited are priorities for our science and technology program. We have not completed that process. We are trying to integrate it with the accelerated cleanup plans, just as we have done at Hanford, where the results of that were four specific technologies that we have been exploring that we want to pursue going forward. I expect that we will see the same opportunities and fold those into our science and technology initiatives for 2003. So, that is a process in progress. It is not completed.

I agree those are two specific areas where technological opportunities exist, and I believe we will have a technology initiative. Most specifically, we are very interested in some of the technologies we have been discussing at the site in relationship to disposition of the sodium-bearing waste. So, that is a process in progress, not completed.

Senator CRAIG. Thank you.

Kathleen, would you respond to that from your perspective as a State regulator?

Ms. TREVER. Thank you, Senator Craig. As I mentioned in my statement, two of the toughest problems at the INEEL involve high level waste both in liquid and in powder form, as well as buried plutonium-contaminated waste. In both of those cases, the technology is uncertain even for the baseline scenario which includes a schedule over 10 years for each of those respective projects and in the billions of dollars.

In the case of the high level waste, DOE's tank focus area had looked at that and supported use of vitrification, but in terms of development of the INEEL performance management plan and NEPA documentation, DOE has proposed other options that involve unproven technology. So, there is a need to make those types of investments to get those particular jobs done as well as potentially realize some savings from accelerating the process.

Senator WYDEN. If my colleague would yield, it just seems we are either having an orchestra or a—

Senator CRAIG. Could we stop for just a moment?

Senator WYDEN. Just to have the cell phone turned off so that my colleague could ask his questions. That is great.

Senator CRAIG. Somebody has a cell phone ringing here. It is playing lovely music, but it is mighty distracting.

Senator WYDEN. We have stopped the symphony.

Senator CRAIG. Thank you.

One last question, Mr. Chairman. Kathleen, we are talking about acceleration. And I do thank you for being here today because Idaho and its citizens have had concern about what all this means, how it gets defined ultimately, how it relates to what we believe is an important agreement with certainly time lines that must be met and all of that type of thing.

And at the same time, I have worked with the Secretary and with Jessie to bring some reality to a problem that I think has been well defined here today. Obviously, the Attorney General from Washington expresses the same kind of frustration. We spend lots of money and what we get done is, in many instances, questionable.

Of course, we saw an episode out in Idaho called Pit 9 that was a very real frustration to all of us, and now we are back to an amazingly practical perspective as to how we might approach it. Instead of building a monster facility, we might use something that is available at the equipment lot of most backhoe dealers and do so in a rather practical way. And if it works, oh, my goodness, hundreds of millions of dollars saved. But at least there is flexibility out there in trying to make that happen.

Kathleen, could you address just a bit more your perspective, the State's perspective as it relates to these concerns and where you are at the moment with DOE in getting those concerns alleviated?

Ms. TREVER. Thank you, Senator Craig. In response to your question, I want to make it clear that Idaho's cleanup goals and priorities remain the same. What we are working with DOE to do through the performance management process is exploring opportunities where we can restructure activities to accelerate cleanup and make cleanup more efficient. There are some difficult problems that remain that will require the gamut of political, social, technical discussions, but we think with a management commitment on both sides, as well as a fiscal commitment through Congress, that we can work on achieving these goals.

Senator CRAIG. So, today you are satisfied with the discussions, the negotiations, and hopefully ultimately the agreement.

Ms. TREVER. Senator Craig, we are engaged in productive discussions. We still need to develop more details to satisfy some of our concerns, particularly as I mentioned in terms of science and technology investment, as well as developing a clear understanding of what types of uncertainties are involved in these acceleration proposals so that collectively between the State, the Department, and Congress, we can all make a fair assessment of the types of investments that we need to make accelerated cleanup happen.

Senator CRAIG. Thank you. To all of you, thank you much.

Senator WYDEN. I thank my colleague and I want him to know that I look forward very much to working with the Senator from Idaho on these issues. We have worked in a bipartisan way on these and so many other areas and I look forward to working with him again in that regard.

I also want to, before I begin my questions of the administration witnesses, welcome a good friend, Christine Gregoire, one of the country's best attorney generals, consistently on the front lines on public health, environmental and safety issues. Attorney General

Gregoire, it is good to have you here. I have read your statement in detail.

Let me begin by telling the administration witnesses that I have looked at the accelerated cleanup plan, and I will tell you it may be accelerated, but it sure does not resemble a cleanup plan to me. And I want to be very specific about my concerns here.

First, as you look at Hanford, it is not cleanup to close the high level nuclear waste tanks at Hanford and then leave waste behind in so many of the tanks. It is not cleanup to transport an estimated 70,000 truckloads of radioactive waste, some of it mixed with hazardous chemicals from around the country through my home State of Oregon for burial at Hanford. Much of those wastes would be buried in unlined trenches. Now, under State law, you cannot even bury household garbage in unlined trenches.

And it is certainly not accelerated or cleanup for the Energy Department to delay shutdown of the FFTF reactor until 2011. Every year the Department delays FFTF shutdown, it wastes an additional \$36 million of taxpayer money that could be used for cleanup.

So, I want to support any accelerated action here that is going to get real cleanup, but leaving more high level nuclear waste in tanks, dumping more radioactive waste at Hanford, and delaying the shutdown of FFTF does not sound like a cleanup to me.

So, let me, if I might, begin with some questions for you, Secretary Roberson. I do have some questions for you, Ms. Gregoire as well, and would certainly invite the other witnesses to come in as well.

Secretary Roberson, the Hanford performance management plan and other Department goals, as you all describe them, call for an estimated 70,000 truckloads of radioactive waste to be shipped across Oregon for burial at Hanford. Much of that waste would be buried in unlined soil trenches. My first question to you is, how does dumping more waste at Hanford, especially into these unlined trenches, constitute cleanup?

Ms. ROBERSON. Senator Wyden, first of all, let me say that the performance management plan is not intended to imply disposition of low level or mixed low level waste in unlined trenches. When I was at Hanford a week and a half ago, this was a subject of a discussion that I was able to participate in with our regulators and with members of the public, including representatives from the State of Oregon. The Department has emphasized its commitment, and if not addressed in the performance management plan, it is one of the things that will be specifically addressed, that we are not planning to disposition waste in unlined trenches.

As far as the movement of low level or mixed low level waste to Hanford, as you know, this is the subject of an ongoing environmental impact statement. I am not going to presume any decisions out of that, but recognize that the process is ongoing and it certainly is drawing a lot of involvement and engagement. I think that is intended to be part of the process and is certainly part of the consideration in any resultant ROD from that process.

Senator WYDEN. Well, it just looks to me like a shell game. If you move the waste from one site to Hanford, you are just shifting a problem from one place to another. Now, explain to me how that



constitutes cleanup. I guess at some point you can just move it from place to place to place, but what people in this country want is a real cleanup. So, explain to me how moving it from place to place is going to really take us forward.

Ms. ROBERSON. Well, Senator Wyden, I would probably liken it to the disposition of TRU waste at the Waste Isolation Pilot Plant. We have to—and when I say we, I mean this is all of our problems. This is not just the Environmental Management Program's set of issues to address. We have to maximize use of all assets available. This complex is a very integrated complex. It always has been. It did not just become that way with the Environmental Management Program and does indeed have meaningful and environmentally protective assets at different locations across the site.

Our proposal, our path forward—which is also not simply a new element of an accelerated cleanup plan, but was certainly identified in the Waste Management EIS performed before we even began this endeavor—to complete an evaluation of disposition of low level or mixed low level waste at the Hanford site this is one of the options.

Senator WYDEN. I think what is so troubling to me is what is going off-site to WIPP could be a couple of steps forward. Nobody is going to debate that. But what is coming to Hanford for disposal seems like thousands of steps backward, and that is why I am so troubled about this question of just moving it from place to place. But I do want to ask you about a couple of other areas.

The Energy Department's top to bottom review, its budget request, and the management plan all propose closing single shell tanks containing high level waste without first retrieving as much waste as technically feasible, as required by the Tri-Party Agreement, and vitrifying the waste for permanent disposal. Now, more than 60 of those tanks are known to have leaked at least 1 million gallons of wastes that are already moving toward the Columbia River. If you do not empty out the tanks, as required by the Tri-Party Agreement, are you not lowering the standards for cleanup and again just leaving the problem behind?

Ms. ROBERSON. Senator Wyden, we have proceeded aggressively in implementing a tank waste retrieval program, in the installation of equipment. We are proceeding aggressively on that. And our commitment is to remove as much waste as feasible, as we have committed to do. There is a recognition that this does not mean that we know how to remove every drop of waste, but it is our commitment to remove as much waste as feasible.

Senator WYDEN. I think again what troubles me, because I know you are looking at various alternatives and you have talked in the past about looking at less costly alternatives for tank waste such as grouting, it just seems to me that this is all so speculative and so hard to actually see producing a cleanup. Again, it leaves me troubled that we are going to get a whole lot more waste in our part of the world, we are not going to have an aggressive cleanup schedule, particularly with the changes as it relates to vitrification. That is why I have so much trouble with this idea that somehow this is called accelerated and real cleanup.

Attorney General Gregoire, I read your testimony about your concern that DOE would leave you with substantially more con-

tamination at the site than currently contemplated by the Tri-Party Agreement. That is your testimony at page 6. I wonder about your sense about DOE's plans to bring tens of thousands of truckloads of radioactive waste from around the country and to dump them at Hanford. It is this kind of shell game kind of concept.

I gather we have made some progress in recent days on the question of the unlined trenches which sounds encouraging in that regard.

But what do you think about this question of so much additional material coming to Hanford?

Ms. GREGOIRE. From the very beginning, when we negotiated in partnership with the State of Oregon the Tri-Party Agreement, we have stood on the very principle that no waste comes to Hanford until waste that is at Hanford is treated and stored and properly disposed of.

For example, why is it that today we still have some 2,000 cesium-strontium capsules? Those need to be removed from Hanford and properly stored.

Why is it that we have the largest amount of transuranic waste, 75,000 cubic meters? That needs to be properly removed and stored and treated and taken elsewhere.

The bottom line is the tanks, as you mentioned. 177 of the 200 total in the entire complex at Hanford with a large number of them leaking have to be removed.

And our position is not just what is technically feasible, but no less than 99 percent. And Senator, when we first engaged in the Tri-Party Agreement, we wanted all of the waste removed. We wanted the tanks removed themselves, everything associated with it.

So, unless and until we see progress in those areas, we have said consistently all the way along no additional waste at Hanford. We want to be a good partner, but partnership means we get on with the cleanup at Hanford before Hanford has to sacrifice more and take more waste.

Senator WYDEN. You summed it up as far as I am concerned. I think the only other question I have for you, Attorney General Gregoire, is you were quoted in the paper something again that I agree with. I find myself agreeing with you so often. You say that there would be no quid pro quo for Hanford taking this waste in exchange for getting more progress with cleanup. What is in it for Hanford and, again, the people who live downstream in my home State in terms of this whole kind of deal? It sure does not sound like there is much in this for us.

Ms. GREGOIRE. Our concern is for Washington, Oregon, and Idaho because of the Columbia River and its vitality and importance to the Pacific Northwest. We did not want the \$800 million set-aside that was set in place by Energy and the incentive package that if we signed up with the intent that we would agree to accelerated cleanup. The quid pro quo was that we would agree to take additional waste, that we would agree to do additional things.

As far as we are concerned, the first and foremost responsibility as a result of what happened at Hanford to particularly those three States is that we make sure we get that cleanup done, and there is no quid pro quo for that. That is what the law of Congress has

set down. That is the law of the respective States. That is the Tri-Party Agreement.

So, we did not want any suggestion that with accelerated cleanup agreements the quid pro quo would be that Hanford would take additional waste and put at risk even greater the Columbia River and particularly those three States. So, that was my comment about quid pro quo.

Senator WYDEN. For the administration—my time is up—just know that you are going to have this member of the U.S. Senate fight with everything I have at the idea that we are going to transport thousands of additional truckloads of radioactive waste, an estimated 70,000 of them, across the country to Hanford when we are not dealing with the problems that Attorney General Gregoire and others have outlined.

I know my colleagues want to ask some additional questions. I repeat again, as I did with Senator Craig, my desire to work with my colleagues in a bipartisan way so that we can get real and cost-effective cleanup. But this may be accelerated, but there sure is not a lot of cleanup in there to me.

I think now at this point it is Senator Cantwell's turn. In fact, I will return the gavel to her. Senator Domenici is back and wants additional questions.

Senator DOMENICI. I just want to make an observation.

Senator WYDEN. Is that all right, Senator Cantwell?

Senator CANTWELL. Yes.

Senator WYDEN. Senator Domenici.

Senator DOMENICI. Thank you very much.

Again, I want to thank all of you for the work you are doing in this field, but I also want to say thank you once again to you, Jessie, for your work and a couple of observations.

Let me say that a couple of Senators are the ones who handle almost all the funding for the projects we have testified to today. I wish at some point we would finally have an agreement between the State with a major problem and the U.S. Government that would bring most of the players up here to say they trust everybody. I just hope we are not—because it is a serious and difficult and political problem, I hope you do not think that those of us upstream up here are trying to be in concert with anybody who is trying to pull the wool over anybody's eyes or do any State an injustice when we know what we are supposed to be doing. We are trying to pay for it and see that it gets done. I do not know how we get the acrimony out of things that have been sort of that way for 15 years, but it looks like some hard-nosed issues are getting agreed to and that is the first sign of progress in my opinion. I hope that is the case. I hope you are doing that.

To Mr. Maggiore from New Mexico, I would hope that with what we have heard here today we will be able to resolve the issue that brings you here. If you were saying that you filed a lawsuit because you could not get the attention of the administration, I do not know how long you have to wait to find out that you have. But they are going to do what they said. I really do not believe that we need a full-blown testimony lasting forever on that issue that you have raised. I think we have been treated fairly in comparison to any other State. We have not gotten as much money, but we will never

get as much money as Hanford, not as much per year. There are three or four or five of them far more costly than ours.

So, I am glad you came, and to the extent that you heard what we are telling you, we tried our best. The other Senator who I think acts very, very fairly is the Senator from Nevada. He is my partner in appropriations. I do not think I would take money away from the State of New Mexico on these projects, and you have not indicated that I would. They are taken care of pretty well.

Could you just take 1 minute and tell us for the record what is the situation for New Mexico right now?

Ms. ROBERSON. As far as progress in the accelerated cleanup plan?

Senator DOMENICI. Yes.

Ms. ROBERSON. We have performance management plans drafted at Sandia, Los Alamos, and the WIPP site. Those are undergoing public review. I think they are progressing well. I think we will have those in place and agreed to by August 1, if not before.

Senator DOMENICI. Does that require New Mexico to agree with you on something or do you proceed unilaterally?

Ms. ROBERSON. It is the specificity of the details that support the letters of intent that we agree to.

Senator DOMENICI. Thank you, Madam Chairman.

Senator CANTWELL [presiding]. Thank you, Senator.

Senator DOMENICI. Thank you, Peter.

Senator CANTWELL. I would like to go back to Assistant Secretary Roberson on a few issues. I appreciate your indulgence. These are important to the State of Washington. As I think I articulated briefly in my comments before we got into the testimony, we have had so many stops and starts in our State as far as the long-term success that we have needed to make, that these issues become critically important in any kind of new proposal.

I know you are familiar with the DOE order 435.1, which was done in December 1999, which was about reclassifying high level tank waste. While that was done prior to any kind of new proposals on cleanup, in order just to quell the concerns and fears that we have in Washington State, will you commit that DOE is not going to attempt to use that order as a way to reclassify the waste in Washington State without going through a stakeholder process, which would then again break the Tri-Party Agreement?

Ms. ROBERSON. Senator Cantwell, DOE order 435.1, which contains guidance on the technical basis, and includes manuals for management of radioactive waste, as you said, was issued in 1999. It did include a chapter on high level waste with a set of requirements that address waste incidental to reprocessing, WIR, as we commonly call it. Within that chapter it identified requirements that would allow management of tank waste as for managing non-high level waste if specific criteria were met. It is not misaligned with the EIS or the ROD that was issued for management and disposition of the high level waste at Hanford.

It has been our proposal to implement that order. That order and its manual went through a fairly extensive public process during development and issuance. It is our intent to implement that order as it was designed.

Senator CANTWELL. If the stakeholders in Washington State do not agree with that reclassification?

Ms. ROBERSON. We do not believe that we are reclassifying material. As you well know, there is a lawsuit ongoing. In May the Department filed a motion in the Idaho District Court to dismiss the lawsuit as we believe it is without merit. Oral arguments are scheduled for July 22. Because that is in ongoing litigation, it is probably all that I can say at this point.

Senator CANTWELL. You cannot say whether you will work with the stakeholders in Washington State?

Do you understand we signed an agreement on August 1? We're not clear about what reclassification means. The Department of Energy comes back and says, you know that waste in half of the tanks, we're going to reclassify a third of that to be something that is less than high level waste, incidental to reprocessing, and we are not going to retrieve that. In fact, we are just going to take the tanks and close them after we process half of the waste. Do you understand where that leaves us in Washington State?

Ms. ROBERSON. Yes. I understand the concern. I clearly understand that there is a concern, otherwise we would not have a lawsuit that we were working through. We do not believe we are proposing to reclassify waste. We believe the actions that we have proposed are consistent with 435, which is also consistent with the EIS.

Senator CANTWELL. So, one great way to, obviously, quell the fears then would be to agree that decisions will be made with consensus of the stakeholders and those a party to the Tri-Party Agreement. Any kind of plan to reclassify waste in the tanks would be subject to the Tri-Party Agreement, and you would have the agreement of the stakeholders in Washington State Environmental Protection Agency and others who have been tracking this process. So, they would also agree on whatever plans for any kind of reclassification of the waste in the tanks.

Ms. ROBERSON. I think what I can say is we do not believe we are proposing to reclassify waste.

Senator CANTWELL. Earlier I asked a question as it related to the Tri-Party Agreement, and maybe we should ask the Attorney General to jump in here. But my understanding of the question that I asked you is, would you, on the tank waste retrieval process, comply with the Tri-Party Agreement? And you said yes, that you would. And part of the Tri-Party Agreement is terminology that says you have to clean up 99 percent, and I believe the language is "and is technically feasible."

Ms. GREGOIRE. Everything that is technically feasible but no less than 99 percent.

Senator CANTWELL. But no less than 99 percent. So, maybe we should go back over your testimony on that. But my understanding is you said yes. That would commit you then to processing all the waste that is in those tanks.

Ms. ROBERSON. I believe—and I happened to bring it with me because I knew it was important to be very clear—the Department's commitment, which is a reflection of the 1996 EIS for tank farm cleanup, says that the Department is committed to recover as much waste as technically feasible and it in parentheses highlights that

that is assumed to be 99 percent. We believe that also means that if it is not technically feasible, we have an obligation to come back, and that would be our intent. But our intent is to fulfill our commitment as captured in the Tri-Party Agreement.

Senator CANTWELL. Which is 99 percent.

Ms. ROBERSON. Which is to remove as much waste as technically feasible.

Senator CANTWELL. Then I think we have a disagreement here and a big hole in a plan that can be signed and agreed to by August 1 because I do not think anybody is going to agree to a plan in which the definition of that waste and how it is processed is up in the air in DOE's hands alone. No one is going to agree to that kind of a plan because they cannot. We cannot come back and find out that we are only going to process half of it and we are going to leave half of it in. Or unless you agree today that the stakeholders in Washington State, the various agencies, will have a say in that agreement and will not have something just shoved down their throat.

Ms. ROBERSON. And they are, indeed, having a say in that agreement even right now. This topic was discussed extensively, and I am sure it was not the first time. But I had the opportunity to witness the dialogue myself between the parties to the cleanup agreement, as well as members of the public that participated in that conversation. So, they are, indeed, having the opportunity to participate.

Senator CANTWELL. Having input and having the State of Washington stuck with high level waste in tanks that they think should have been retrieved will not be a sufficient plan for us. I do applaud the larger goals of multiyear funding and expedited cleanup for a whole variety of reasons. For one, we have a very serious problem as that handout showed of the plume going to the Columbia River. Secondly, it is important to the taxpayers in the country that we do this in the most efficient manner possible and not delay it.

So, there are some very good goals to this plan. But you have to understand you cannot leave the State with the responsibilities of cleanup. We cannot agree to something now that is unclear on the specifics of what DOE's continuing obligations in this process are going to be.

So, we need to either have, one, the clear definitions so that we understand, or an agreement that will have sign-off in the future. I do not want to speak for our Attorney General, but my sense is those are the two options that we would like to see. We do not want to see vague language and no commitment for sign-off in the future because that leaves us with uncertainty.

Ms. ROBERSON. Senator Cantwell, I think there is obviously a sign-off even today, as well as in the future, should information avail itself that changes it and the fact that we are not proposing to change this commitment in the Tri-Party Agreement.

However, I would say I think the debate is actually relevant as we proceed with technology applications for retrieval because that is the context of this issue. Our commitment is to remove as much waste as technically feasible, and I think that we will certainly

have to conduct that work and have done so in the past in collaboration and discussion with the regulators and the public.

But the real debate here is not reclassifying waste. It is how much waste can we retrieve. To me that is the real work. Both technologically and operationally we have to participate in that and make sure that it satisfies that commitment that we have made.

Senator CANTWELL. I want to give the Attorney General a chance and anybody else who wants to jump in here, although it is not directly related to some of the States, but they may have a similar experience.

I would just say—well, first, I want to just clarify. On those budget numbers that you said we would get in the next couple of weeks or before August 1, we are going to get 2003 and 2004, throughout the plan's duration. We are not going to just see 2003. Right? We are going to see what the proposal is for the multiyear funding.

Ms. ROBERSON. Yes. We have a requirement in the Tri-Party Agreement to share 2004, and 2004 clearly is a follow-on to the performance management plan as well in that it is not just a 1-year plan. That is correct.

Senator CANTWELL. So, we will see those numbers.

Ms. ROBERSON. And in fact, you have seen 2003. What I understand is presenting the discontent is the specificity to the detail of activity by activity, which again has to be aligned with the activities that we agree to do. So, absolutely you will see 2003 in greater specificity than thus far, but also 2004.

Senator CANTWELL. And 2005 and—

Ms. ROBERSON. Well, I can commit to 2003 and 2004 right now. I had the opportunity to talk with them. Our plan is to lay out a funding profile through 2008.

Senator CANTWELL. But we will only be able to see up till 2004 of that?

Ms. ROBERSON. I do not know that you will be able to see it with the same degree of specificity, but I think you will be able to see the funding profile proposed to accompany that scope of work.

Senator CANTWELL. We will come back to this in a second. I wanted to give the attorney general a chance too. Obviously, this issue of reclassification of waste as incidental to reprocessing is an issue as it relates to the Tri-Party Agreement. Do you think that that would be circumventing the Tri-Party Agreement?

Ms. GREGOIRE. I think that what has led to this confusion is two things. One, the order 435.1 of 1999 and the NRDC lawsuit that has been brought now in the State of Idaho where NRDC believes that the intent behind the order is to redefine high level waste to low level waste and then allow that waste to be left in the tanks. That has caused concern in the State of Washington, Idaho, and Oregon, for obvious reasons.

The second thing that has led to the concern is the May 1 proposed plan left everybody understanding that in order to accomplish what was set forth there, they had to leave waste in the tanks.

The combination of those two things has led the stakeholders in the State of Washington to engage in considerable rumor about

really what is the underlying intent of accelerated cleanup, and how do you define accelerated cleanup?

We have made, at the negotiating table, as the Secretary indicated, considerable progress towards clarifying that. We really do need to put this issue to rest, however, because this has been the skepticism since we first signed the Tri-Party Agreement in 1989. What does cleanup of the tanks mean? And the vision of the State of Washington, at least at that point in time, was removal of all waste and the tanks. Now it is removal of all waste, that which is technologically feasible, but no less than 99 percent. We have got to iron this out. We have got to get this committed to so that we can get rid of this mistrust and skepticism and litigation.

On Monday, we will file an amicus brief in the litigation and we will ask the two parties to it, the NRDC and DOE, to agree to go to the table with us and negotiate a resolution of that issue rather than litigate it in the courts to finally put this issue to rest, that without any doubt that everybody has a common understanding—and Congress would play a major role in that—that the absolute intent of DOE is to remove no less than 99 percent but all that is technologically feasible, which I hope is more than that, from the tanks at Hanford and then process them and treat them, store them properly, and send them off to the appropriate storage places as a result of the removal and retrieval process.

But you are absolutely right, Senator. This has caused considerable concern back home, and this particular issue is the one which causes the greatest concern. If you look currently at the contamination that has been detected in the Columbia River, much of it high level waste that is in the Columbia River currently is from the 200 central plateau area of Hanford. Now, I cannot tell you that specifically comes from the tanks or the trenches or what have you, but the bottom line is it is coming from the 200 area where the tanks are. The iodine plume that I showed you is just an example of dramatic movement. We already know many high level contaminants are already detected in the Columbia River. We can never afford to have that river contaminated. We have got to stop the source and then treat, and stopping the source is removing all the waste from the tanks. That is why the terrible consternation in the State of Washington as to whether they can now trust the DOE is actually going to remove all of the waste from the tanks.

Senator CANTWELL. Do either of the other witnesses want to say something on this subject?

Ms. TREVER. Thank you, Madam Chairman.

Idaho, as Attorney General Gregoire mentioned, also has some interest in the outcome of this litigation since we too have a smaller number of tanks that may be subject to this waste classification order. I would just second the attorney general's comments about making sure there is a common understanding of what the goals of cleanup are so that we can move forward in this regard.

Senator CANTWELL. Well, I certainly agree. I think that this provision undefined is a loophole that you could drive a truck through and really makes the agreement not worth doing if you do not have the definitions set. Otherwise, States could be left with reclassified waste as incidental to reprocessing, and States may not necessarily agree with DOE's decisions and get stuck with that waste.



I want to ask the Attorney General, you focused in your testimony about just this plan in general, the accelerated process. I want to make sure that as we are going through this initiative, that we have created the right vehicle. As I have said, there are some great goals here, getting cleanup done faster because of the environmental urgency and at lower cost to the taxpayer is certainly very, very admirable. But has this initiative caused us other problems or challenges that we should be addressing?

Ms. GREGOIRE. Well, as I mentioned, who is against accelerated cleanup? Who is against saving taxpayers money? Who is against cleaning up and avoiding the security risk, the public health risk, the safety risk, the environmental risk that Hanford poses today?

The problem is, again, the lack of specificity, if you will, in the May 1 proposal has led to considerable concern back home that the intent here is to expand the definition of where we do our testing for groundwater contamination. Moving the goal line is considered to be a terrible way to go. The idea that, well, forget the Columbia River is so large and so free-flowing there. The old idea of the solution to pollution is dilution does not work in this instance. The bottom line is we cannot afford to have any contaminants reaching the Columbia River. Despite the fact we already have some, we have got to stop the source. The lack of specificity in the May 1 plan caused considerable consternation.

Coming forward with the \$800 million pot of money, if you will, also caused concern. The concern there was what was being asked in return for it. Was it a good faith, let us agree to accelerated cleanup that is compliant with the laws, compliant with the Tri-Party Agreement? Was it the intent to pit one State against the other, which the States have always remained united. No State wants to take money from another State. We all want to get the cleanup done at every single site and we refuse to have the States pitted against each other.

Those kinds of things were discussions at the National Association of Attorneys General level in which we communicated to the Secretary please remember that we, the States, stand united on this cleanup effort. We will not fight against each other. We want sufficient funding to do the job that is required by law at each and every one of the sites.

Since that initial consternation, we have made considerable progress. Now, the devil is always, as I mentioned, in the details. We have got to get it done and we have got to get it done by August 1. We have got to see the budget, which we have not yet seen in the specificity as you mentioned, Senator, that we need.

So, I guess it is one of those kinds of situations where I can come back and tell you more in a month, but the process that we have engaged in here has led to considerable concern against a backdrop of, unfortunately, far too much mismanagement, far too many failures, far too much paper shuffling and not getting the job done, that set against the backdrop of ultimate secrecy during the time that the Hanford operation was in full force and effect, the results of which is this mistrust, frankly, that has been inherited, has also been added to by the lack of specificity in the May 1 agreement and this mistrust about what is the \$800 million intended to do.

Is it intended to pit the States against each other? And if so, we do not want to play that game. Is it intended to force a quid pro quo? You take more waste or you do not get the money that you should for the cleanup? If so, we do not want to play that game.

The bottom line is we need to work our way back through this to get back out and get the citizens of the respective States, New Mexico, Idaho, Washington, and others, to trust this process, trust that this is good faith and meaningful and that we are going to get on with the job and do exactly the overall intent, accelerated cleanup which is in compliance with the laws, which is with good management, which is frugal with respect to public money, and is in good communication with the public at large, and finally, finally, finally will get us cleaned up.

Senator CANTWELL. Does Assistant Secretary Roberson's specificity on 2003 and 2004 do that job? It is a little unclear to me what the broader numbers are going to be for years after that. So, what is it that you need to see for specificity in funding?

Ms. GREGOIRE. Well, we have not seen the specificity with respect to 2003 and 2004 because we have not finished the negotiations on the accelerated cleanup plan. But as soon as that is done, we under the Tri-Party Agreement are entitled to have received it sometime past, and if we do not think it meets the commitments of the Tri-Party Agreement, then we engage in negotiation.

Once we get that, we need to opportunity, Senator, to be of assistance to both the Department and to Congress to tell you whether we think the specificity contained in 2003 and 2004 will, in fact, meet the obligations under Federal and State law and the Tri-Party Agreement. So, when we see that again, as I mentioned, probably in a month I could answer the question better, but we have to have that specificity under Tri-Party Agreement to ensure to Congress that, yes, the obligations of what Congress has set forth in the Tri-Party Agreement are to be accomplished with that budget.

Senator CANTWELL. And do you think that you could sign an agreement that was unclear about the reclassification of tank waste?

Ms. GREGOIRE. No. As I mentioned, if we do not get over the mistrust, if we do not add the specificity—and I say that I think for my colleagues from both of these States and from the other States that are directly affected. We have got to get this issue behind us of what is the definition of cleanup. And that does not mean how do we treat it. That does not mean the science behind it. That means an absolute, without question commitment by the Department of Energy that all of the waste from those tanks is going to be removed, no less than 99 percent and anything beyond that that is technologically feasible.

Senator CANTWELL. Do any of the other panelists want to comment on that, either the broader impacts of this process as a new initiative or the budget?

Mr. MAGGIORE. Madam Chair, if I might. Your original question, I believe, was, has it caused other challenges, and let me just refer back to my testimony in terms of having the concept of long-term stewardship better developed. I do not think that is something that has been mentioned by the other panelists, but in New Mexico that

is an issue that is very much on our minds. What does that mean? What is the level of effort and what is the funding associated with that?

In addition, the interconnectedness that you heard mentioned between our States and the facilities in those States, it puts States in somewhat of a unique position in that typically having advocated only for our own facilities but now with the vision by the Department of Energy and recognizing that interconnectedness, having us become more aware of what is going at Idaho, what is going on at Rocky Flats, and what that means in terms of our State and what we should be supporting.

Personally, I have not seen any goal line moving or any quid pro quo types of negotiations. I sat in personally on the development of the proposals for the accelerated cleanup and on several occasions sent the Department of Energy back to the drawing board because we were not satisfied with what was coming up. It did not seem to meet the challenge of the top to bottom review. It did not seem like something that I could support to my Governor or the taxpayers would support in being new, innovative, and accelerated. To the Department of Energy's credit, they went back to the drawing board and ultimately presented a program that I could support to my Governor and I could sign onto with the Department of Energy.

So, thank you for letting me make those comments.

Senator CANTWELL. Did you want to add something, Secretary Roberson?

Ms. ROBERSON. Senator Cantwell, I would say—what I would like to say or what I will say, given the opportunity, is that these are all very hard issues. Our intent is not to minimize the difficulty associated with them. Many of the issues that are very much in the forefront of our mind right now have laid dormant for far too long. We are the people who really need to assess where we are and what availability of knowledge and experience and technology we have to apply to solving those issues.

The degree of executive energy and involvement among all of the parties to these agreements has been tremendous. Quite frankly, that is the only way we will work through some of these hard issues because there are people like us who built the facilities and ran the operations, and it is people like us who are going to have to address the issues as a result of that. And that is what we are doing, and that is the intent of this program.

Senator CANTWELL. Well, I think I certainly supported your nomination and people from throughout the cleanup process from our State have been positive about your appointment on environmental management. But I think you have to think historically about Washington State's experience and the experience of the taxpayer. We have spent \$35 billion at Hanford. \$35 billion and we have yet to vitrify one log of tank waste. So, to them, a new program is going to be met with a great deal of skepticism.

So, I think you have said a couple of things today, and you might have to go back and look through your testimony. I heard you at one point saying you will agree to the Tri-Party Agreement. The Tri-Party Agreement is very clear. It is 99 percent.

In other cases, I think that maybe this issue of reclassification is still out there, and I do not think we are going to get that answered today. But what I will say is that my sense is that you are going to run into a problem, as you should, with these individual States as you are negotiating, if we are not clear about both the budget terms and the cleanup process. We at least need to know that you are committed to the same goals. I would say at least for me, although I think some of my colleagues will join in, this program will not be successful here if those questions are not answered, because otherwise, we just have too big of a loophole, too big of a question mark with the history and the series of missteps. Again, that has occurred over many administrations, over many directors, over many people involved. But yet, we have to deal with this with a great, great deal of skepticism given the amount of money and time that we have already spent on this issue.

Did you have further comments? If not, I have a question for Dr. Patrinos who has been so nice to sit through all of this.

Ms. ROBERSON. Actually, I will hold it.

Senator CANTWELL. Dr. Patrinos, it was great having you in Washington for the spectrometer ribbon cutting. We appreciate your coming there.

Dr. PATRINOS. Thank you.

Senator CANTWELL. Given the robust nature of the science and technology budget for cleanup efforts and the proposed switching of the Environmental Management Science Program from EM to the Office of Science, are there mechanisms in place to make sure that the investment has a significant impact on accelerated cleanup? And can you make assurances that the funding awards will really impact those environmental cleanup challenges?

Dr. PATRINOS. Indeed. First of all, I also enjoyed the event we had at the EMSL, and I was delighted to see you there.

As I mentioned in my prepared remarks, the partnership that we have had with EM is a longstanding one. The environmental management science program that the administration is proposing to move to the Office of Science and in my office specifically is one that we have partnered with from the very beginning since 1995. The Office of Science has been doing the peer review of the proposals that are received as a result of the solicitations, and our colleagues in the Office of Environmental Management who own the problem and, as I mentioned, are on the front lines have been involved in the relevance review. We have been side by side dealing with this program and we have learned a lot from each other. I think they have gained a greater appreciation of the value and the long-term possibilities that the basic science program can offer, and also in the Office of Science we, frequently having been accused of being in our ivory towers away from the real problems, have actually learned how science could be translated into technologies and ultimately having them deployed for the solution of real problems, such as the cleanup problem, perhaps one of the most challenging problems facing the Department of Energy.

So, we are starting this new phase of the partnership with a lot of experience with each other, and we are certainly committing to continuing that partnership in the years ahead. In the Office of Science we commit certainly not to forget what this research pro-

gram was all about and what the ultimate objectives are. We need to make sure, of course, that the program is still basic science so that it does not get too tied to a specific problem and go down a specific path because then it becomes applied science and that strays away from our original mission. Our objective is to provide knowledge, a knowledge base that could then be applied for the development of technologies. Eventually they are problem-specific eventually or site specific.

The biological effort, specifically in bioremediation, holds great promise given the advances and the biological revolution brought about by the genomics field. We could develop the tools for bioremediation that could then be applied to a specific site and for a specific problem where the problem is different from site to site and from circumstances to circumstances. That is our objective.

And I am very optimistic that given the track record that we have had, we will be able to deliver on the time scales, of course, that basic science can deliver, which are the long-term problems, the intractable problems that I believe we will be left with for many years.

Senator CANTWELL. So, part of the 2003 budget transfer from EM to the Office of Science does not include any money for new starts of technology. So, is that a problem?

Dr. PATRINOS. We will have to reevaluate the program as it currently is and contemplate whether we will issue new solicitations. We try to do that, frankly, even every year with existing funds and even if the funding is flat. We recycle the program because all grants are roughly 3-year grants, and there are some that would come to a natural completion at the end of the next fiscal year. So, there is a possibility, as we review the program and scrub it, that we will issue a new solicitation for new starts across the scientific community.

Senator CANTWELL. Well, unless there are any other comments by any other panelist, we are going to adjourn this meeting. But I thank the Department of Energy and the individual States for coming to present their testimony.

I think we have heard a lot today, but I think it points out that there is a lot more yet to be done on the specification side and we will look forward to hearing more details about individual negotiations and about the plan on accelerated cleanup.

We are adjourned.

[Whereupon, at 12:05 p.m., the hearing was adjourned.]

## APPENDIXES

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### APPENDIX I

#### Responses to Additional Questions

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DEPARTMENT OF ENERGY,  
CONGRESSIONAL AND INTERGOVERNMENTAL AFFAIRS,  
*Washington, DC, August 27, 2002.*

Hon. JEFF BINGAMAN,  
*Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.*

DEAR MR. CHAIRMAN: On July 11, 2002, Jessie H. Roberson, Assistant Secretary for Environmental Management, and Dr. Aristides Patrinos, Associate Director for Biological and Environmental Research, Office of Science, testified regarding the department's process in implementing its accelerated cleanup initiative and the changes the department has proposed to the Environmental Management Science and Technology Program.

Enclosed are the answers to 14 questions submitted by Senators Cantwell, Craig, Domenici, and Graham. The one remaining answer is being prepared and will be forwarded to you as soon as possible.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Lillian Owen, at (202) 586-2031.

Sincerely,

DAN R. BROUILLETTE,  
*Assistant Secretary.*

[Enclosures]

#### RESPONSES TO QUESTIONS FROM SENATOR CANTWELL

##### RIVER CORRIDOR PROJECT

*Question 1.* A big part of Hanford's cleanup future includes accelerating remediation of the river corridor. Wouldn't you agree that the river corridor project needs a focused effort by the Department and its contractors that emphasizes closure and the deployment of innovative approaches to accelerate the schedule and reduce costs to get more actual cleanup done?

Answer. We agree. The new contract for the River Corridor Project at Hanford emphasizes accelerating remediation of the River Corridor through a focused effort to apply innovative approaches to reduce costs and accelerate the cleanup schedule, similar to the successful approach taken at Rocky Flats. It is estimated that this accelerated approach will save hundreds of millions of dollars over the life cycle of the project and help accelerate the overall Hanford cleanup by decades. This is the first Strategic Initiative in the *Performance Management Plan for the Accelerated Cleanup of the Hanford Site*, and there is strong support from stakeholders, including the state regulators, the U.S. Environmental Protection Agency, and the local community, for this new contract and project approach. Contractor proposals on the new River Corridor Contract at Hanford are currently in the evaluation process by the U.S. Department of Energy (DOE). It is expected that this contract will be awarded within the next few months.

##### NEW MANAGER AT OFFICE OF RIVER PROTECTION

*Question 2.* As I have repeatedly emphasized, successful cleanup of the Hanford site depends on the strong support of all the major stakeholders, including the state

regulators and the local community. It's important that the Hanford site managers work well with the stakeholders in advancing cleanup of Hanford and protecting the river.

Will you encourage the new manager of the Office of River Protection, Roy Schepens, to continue the practice of developing strong stakeholder relations, especially with the state regulators?

Answer. I will continue to encourage Roy L. Schepens, and all of the managers at DOE sites across the complex, to build collaborative relationships with regulators and stakeholders. DOE is committed to maintaining open and constructive relationships with regulators and stakeholders. We view this as one of our core responsibilities to the states hosting DOE Sites.

Mr. Schepens was selected to manage the DOE Office of River Protection because of his first-hand experience in waste treatment at the DOE Savannah River Site, where tank waste is currently being vitrified. Successfully working with state and Federal regulators, the stakeholders, and the public was an integral part of that process. The Office of River Protection has already built a positive and mutually beneficial relationship with its regulators and stakeholders, as evidenced by the streamlined and accelerated permitting process that allowed limited construction of the vitrification plant to begin five months in advance of the Hanford Federal Facility Agreement and Consent Order milestone date. I encourage Mr. Schepens to continue that positive trend during his tenure as Manager of the Office of River Protection, and to build upon that existing relationship with regulators and stakeholders.

#### WORK WITH LOCAL COMMUNITY

*Question 3.* Will you continue the efforts at Hanford of working with the local community in a collaborative and constructive manner?

Answer. Yes. Local community interests are well represented on the Hanford Advisory Board, so we learn monthly (or more frequently) their perspectives on Hanford issues. In addition, the DOE Richland Operations Office Manager, Keith A. Klein, and the DOE Office of River Protection Manager, Roy L. Schepens, attend monthly meetings of the Tri-City Industrial Development Council Subcommittee on Hanford, working closely with area business leaders through that interface. Also, Mr. Klein and Mr. Schepens schedule quarterly meetings with local elected officials to discuss Hanford and community issues. Of course, should specific issues arise, DOE managers and staff are always available to meet individually with local community representatives. Finally, the Richland Office of Communications has a staff member assigned to interact with local government officials and the Hanford Communities group in order to share their concerns with senior managers.

#### RESPONSES TO QUESTIONS FROM SENATOR CRAIG

##### SCIENCE AND TECHNOLOGY SHORTFALLS

*Question 1.* Secretary Roberson, your revamped EM Science and Technology Program proposes to look at thirteen environmental challenges to accelerated cleanup and closure across the EM complex. According to the documents I have seen, none of these challenges to accelerated cleanup are connected to issues at the INEEL.

In your view, does DOE have all the technology it needs to address sodium bearing waste and buried waste at the INEEL?

Answer. We believe adequate technological approaches exist and have been reviewed by EM. The Idaho accelerated cleanup strategy outlines seven priorities that include both the removal and stabilization of the sodium bearing liquid waste from the tank farm and making significant progress in the remediation of buried waste at INEEL consistent with the Pit 9 agreement of April 18, 2002.

There are candidate technologies for the remediation of both wastes. However, performance evaluations, further development, and optimization are required to ensure that the most appropriate technologies for the cleanup operations are selected and used.

There are several candidate technologies for treatment of the sodium bearing waste at INEEL. These technologies must be evaluated to select the process that will be used for treatment of the sodium bearing waste and then to optimize the process selected to produce a waste form that can be shipped for disposal in the Waste Isolation Pilot Plant, to reduce secondary waste, ensure worker safety, and to minimize costs. The EM Science and Technology Program plans to fund a technology development effort in FY 2003 to support the accelerated cleanup for the sodium bearing waste at INEEL.

## COORDINATION OF HOMELAND SECURITY

*Question 2.* In testimony before the House Commerce Committee on June 27, Dr. Raymond Orbach—Director of DOE's Office of Science—noted that he had identified a single point of contact within each of the Office of Science national labs to act as a vehicle to transmit research and development to the Office of Homeland Security. I understand that the DOE weapons labs have a similar point of contact.

Secretary Roberson, as the lead secretarial office for the INEEL, have you appointed an INEEL contact for homeland security issues?

Answer. No, we have not appointed an INEEL contact for homeland security issues. However, we have gathered information from INEEL, the Savannah River Technology Center and Environmental Measure Laboratory on specific technology and research and development activities that may be of interest to the Office of Homeland Security and provided that information through the Department.

## SUBSURFACE GEOSCIENCES LAB

*Question 3a.* Secretary Roberson, the previous administration validated a requirement for a subsurface geoscience lab at the INEEL to improve our understanding of the movement of contaminants below the surface. This information is very important to sites such as the INEEL that have large quantities of buried waste.

Do you believe the DOE could benefit from a better understanding of the movement of contaminants below the surface?

Answer. Yes. During FY 2002, we plan to award over \$20 million in research grants in the Environmental Management Science Program (EMSP) targeted at a better understanding of subsurface contamination issues. EMSP transfers to the DOE Office of Science in FY 2003.

*Question 3b.* Would you support an external review of the need for the proposed INEEL Subsurface Geosciences Lab with the review managed by the Office of Science?

Answer. We consider the subsurface science that DOE's Office of Science (SC) conducts, both associated with the newly transferred Environmental Management Science Program and through the Natural and Accelerated Bioremediation and the Biological and Environmental Research programs, as adequate to satisfy the longer-term needs at this time.

## ENVIRONMENTAL MANAGEMENT—DOE SPENT NUCLEAR FUEL AND YUCCA

*Question 4.* Secretary Roberson, the EM currently funds the National Spent Nuclear Fuel Program which seeks to make sure DOE-owned spent nuclear fuel can go into Yucca Mountain.

Does this program have a role in Secretary Abraham's effort to accelerate cleanup at EM sites?

Answer. The National Spent Nuclear Fuel Program (NSNFP) at Idaho is currently assisting EM to plan, integrate, and execute the analyses and activities required to safely prepare DOE spent nuclear fuel for interim storage and for ultimate transfer to and final disposal in the proposed geologic repository at Yucca Mountain.

More specifically, these analyses and activities will ensure that the DOE spent nuclear fuel meets the criteria for acceptance in the repository. The criteria are derived from performance-based Nuclear Regulatory Commission regulations. The FY 2003 budget includes \$5 million for NSNFP activities to meet the goals and objectives of DOE's effort to accelerate cleanup at EM sites.

*Question 5.* In the wake of the successful Senate vote on Yucca Mountain and the preparation of a NRC license application, can we expect funding for the National Spent Nuclear Fuel Program to increase to make sure DOE spent nuclear fuel and high-level waste can go into the repository?

Answer. The recent action taken by the Congress allowing DOE to proceed with seeking a license for the repository has reinforced the continuing need for the activities performed by the National Spent Nuclear Fuel Program (NSNFP) in support of the ultimate disposal of DOE spent nuclear fuel in the repository. The Department will provide funding to the NSNFP to ensure that the program is effective, and that DOE spent nuclear fuel is included in the repository license application and will be able to meet repository acceptance criteria. The FY 2003 budget requests \$5 million for the NSNFP in the overall EM budget at the Idaho Operations office.

## MOUND CLOSURE

*Question 7.* Secretary Roberson, the DOE Inspector General released a report dated June 27, 2002, which was critical of EM performance measures. One example



the IG used was the Mound closure date, which was listed as 2009. I understand there is some question about this date.

What do you believe to be the correct estimated closure date for Mound?

Answer. The Department of Energy believes that Mound will be closed no later than September 30, 2006. We are in the process of conducting a competitive procurement that will lead to a cost-plus-incentive fee contract that establishes closure by that date, with incentives to the contractor to complete the cleanup earlier.

#### INEEL AND MOUND

*Question 8.* To what degree have the changes you have made to the EM program—combined with the INEEL environmental technology transfers—contributed to the cleanup acceleration at Mound, and potentially other EM sites?

Answer. We are working to reform the Environmental Management program to refocus efforts on our cleanup and closure mission and on accelerating risk reduction at our sites. We are committed to the closure of Mound and other DOE closure sites by 2006 or earlier.

Part of this effort involves ensuring that closure sites have the necessary technology and technical support to meet closures schedules. The Idaho National Engineering and Environmental Laboratory (INEEL) has been part of our effort to provide technical assistance to DOE closure sites. Among other tasks, INEEL has prepared a cleanup strategy that will meet the state of Ohio's regulatory requirements and satisfy concerns for worker safety associated with the I Building, which contains MOCA(r), a suspect carcinogen. It has also provided assistance in monitoring technologies to provide stewardship after transfer of ownership and in the difficult task of removal and disposition of silo material at Fernald. Although these and other contributions have been significant, 2006 closure of these sites remains a challenging goal.

Other closure site projects that could benefit from technical assistance are being evaluated as part of our effort to refocus the EM Science and Technology program. "Lessons learned" at the closure sites can be applied to other DOE sites as they encounter similar problems.

#### RESPONSES TO QUESTIONS FROM SENATOR DOMENICI

##### TRANSFER OF FUNCTIONS

*Question 1.* The President's budget proposes to reduce the Science and Technology budget very dramatically. That budget has supported many important programs. As just a few examples, I understand that programs like: WERC—the Waste Management Environmental Research Consortium led from NMSU, University Robotics Program—which includes UNM, and the Carlsbad Border Technology Program are all proposed for zero funding in the Science and Technology and proposed for transfer to other Offices.

Just how is this transfer being accomplished, and is EM planning to transfer funds with these programs to ensure that these new proposed "program homes" have adequate resources?

Answer. As part of its initiative to re-focus on its cleanup mission, the EM program is examining all its activities to ensure they support achieving our accelerated risk reduction and closure objectives. There are activities that the EM program currently funds that, although they may provide valuable support to Departmental activities and/or missions, are not directly related to actual cleanup. Some of these activities may be eliminated while others will be proposed for transfer to another Departmental element with a mission more directly aligned with the outcomes of these activities, thereby supporting efforts to re-align the EM program so that its scope is consistent with an accelerated, risk-based cleanup and closure mission. If the Department makes a decision to transfer an activity, the associated budget target and FTEs for all activities would be transferred to other Departmental elements.

##### FUTURE USE OF WIPP FACILITY

*Question 2.* Does the Department recognize that their plans to accelerate closure of many sites "breaks" their compact with WIPP to utilize that facility far into the future?

Answer. The Department realizes that accelerated closure of many sites impacts the long-term use of the Waste Isolation Pilot Plant (WIPP). Under the accelerating cleanup plan, WIPP's mission can be viewed as two parts: disposal of legacy transuranic waste (primarily from past weapons production) and disposal of newly generated transuranic waste (primarily from facility decommissioning). Of the two, the larger portion is the legacy waste. By completing disposal of the legacy waste about

20 years ahead of the current baseline, operating costs associated with disposal of legacy waste are reduced by approximately \$8 billion. After this, WIPP will continue to accept newly generated transuranic waste for disposal, but will operate with a reduced infrastructure. To continue on the current extended cleanup schedule would not support the goal of accelerated risk reduction and cleanup. The Department plans to pursue the most fiscally responsible and accelerated reduction path for cleanup of our complex.

#### IDENTIFY NEW MISSIONS FOR CARLSBAD AND WIPP

*Question 3.* Is the Department supportive of identifying and supporting new missions for Carlsbad and WIPP to ensure that the strong community support for the project continues?

Answer. The Department recognizes that accelerating the mission of the Waste Isolation Pilot Plant (WIPP) is of concern to the local communities in southeast New Mexico. We are supportive of the efforts of the leaders in Carlsbad and the nearby community of Hobbs to develop plans for diversifying the local economies in anticipation of WIPP completing its mission earlier than originally planned.

#### RESPONSE TO QUESTION FROM SENATOR GRAHAM

##### ENVIRONMENTAL MANAGEMENT—NEW APPROACH

*Question 1.* Among the most ambitious and far-ranging missions of the Department of Energy is that performed by the Office of Environmental Management to mitigate the risk of hazards posed by the legacy of nuclear weapons production and research. I am encouraged by the work that the Department of Energy does in coordination with the Nation's universities to research, develop, and demonstrate innovative, cost-effective technologies to solve crucial environmental problems as they relate to the accelerated cleanup of nuclear facilities and the promotion of the health and safety of workers and surrounding communities. Universities, such as the Hemispheric Center for Environmental Technology at Florida International University in my home state of Florida, have proven that they can play an integral role in these daunting efforts to cleanup contaminated water, soil, and structures. I hope that the Department of Energy will continue to work in cooperation with qualified, flexible and cost-effective university partners to achieve its mission. I have heard concerns that re-organization of the Environmental Management Program could result in limiting the program to only big corporate partners. Does the Department of Energy share these concerns? What are the Department's plans to maintain and expand effective university-DOE partnerships?

Answer. The Office of Environmental Management (EM) is committed to utilizing the expertise of all entities—whether private-sector companies, universities, not-for-profit institutions, etc.—that can offer timely, cost- and technically-effective solutions to solve cleanup challenges across the EM complex. Cleanup of the Department of Energy complex is one of the most technically challenging environmental tasks the Nation has faced, and there still are environmental problems that remain intractable. To address these, we continue to need long-term, basic research that can result in breakthrough technologies, work that our national laboratories and universities have traditionally performed for EM under the auspices of the EM Science Program. Starting in FY 2003, the Department intends to integrate the EM Science Program into the Office of Science's Office of Biological and Environmental Research, within a new Environmental Remediation Sciences Division. This will result in more efficient research management and better leveraging of other basic science tools within the Office of Science, including their user facilities. Beginning in FY 2003, the Office of Science will support work at the national laboratories and universities relevant to the EM cleanup effort as appropriate.

In addition, EM is focusing its research and development activities on a limited number of alternative technology projects aimed at solving specific site problems that pose significant risk, cost and schedule challenges.

DEPARTMENT OF ENERGY,  
CONGRESSIONAL AND INTERGOVERNMENTAL AFFAIRS,  
*Washington, DC, September 24, 2002.*

Hon. JEFF BINGAMAN,  
*Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.*

DEAR MR. CHAIRMAN: On July 11, 2002, Jessie H. Roberson, Assistant Secretary for Environmental Management, and Dr. Aristides Patrinos, Associate Director for Biological and Environmental Research, Office of Science, testified regarding the department's process in implementing its accelerated cleanup initiative and the changes the department has proposed to the Environmental Management Science and Technology Program. On August 27, 2002, we sent you the answers to 14 questions for this hearing.

Enclosed is the one remaining answer to a question submitted by Senator Craig to complete the hearing record.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Lillian Owen, at (202) 586-2031.

Sincerely,

MICHAEL D. WHATLEY,  
*Principal Deputy Assistant Secretary.*

[Enclosure]

RESPONSE TO QUESTION FROM SENATOR CRAIG

SUBSURFACE GEOSCIENCE—NATIONAL NEED

*Question 6.* Dr. Patrinos, there have been several National Academy reports indicating that additional research is needed to adequately understand and predict the transport and transformation of toxic materials in the subsurface. EM is now looking to your program—the Office of Science—to provide the needed R&D.

Is your budget adequate and do you have the necessary facilities to carry out this research and technology development?

Answer. The Environmental Management Science Program (EMSP) has had a large focus on subsurface science since its inception and continues to do so—about 1/3 of the total EMSP funding supports research in this area. In addition to the EMSP program, the Office of Science (SC) has a long history of basic research in this area, and today, two programs are particularly relevant: the Natural and Accelerated Bioremediation program (NABIR) in the Biological and Environmental Research (BER) program and the Geosciences program in the Basic Energy Sciences program. The NABIR program is focused entirely on environmental management problems and contains a large component of biogeochemistry—a critical element in subsurface contaminant transport. We are also collaborating with the National Science Foundation and are cosponsoring environmental centers at universities that focus on DOE subsurface science questions. The BES Geosciences program supports research at universities and national laboratories to provide a foundation of scientific understanding and research technology to underpin multiple DOE missions in energy supply, geological carbon sequestration, and environmental quality.

Also, the Office of Science has a number of facilities that support subsurface research: there is a fast-growing community that is using DOE's Synchrotron Light Sources, BER's Environmental Molecular Science Laboratory at Pacific Northwest Laboratory, and its NABIR Field Test Site at the Oak Ridge National Laboratory. Taking these programs and facilities together, we believe we have the necessary resources for the subsurface sciences.

## APPENDIX II

### Additional Material Submitted for the Record

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STATEMENT OF SUSAN DAYTON, DIRECTOR, CITIZEN ACTION/NEW MEXICO

#### BACKGROUND

Citizen Action is a 16-member coalition of neighborhood associations and local organizations representing over 20,000 citizens advocating for clean up of a hazardous waste dump known as the Mixed Waste Landfill located at Sandia National Laboratories in Albuquerque, New Mexico.

#### PREFACE

On May 8, 2002, the State of New Mexico signed a "Letter of Intent" with the U.S. Department of Energy (DOE) with the goal of meeting specific "environmental responsibilities" regarding contaminated sites at DOE facilities in New Mexico. That the State of New Mexico signed this letter was a cause for concern and alarm among many members of communities and environmental groups in the State of New Mexico that have been working diligently to ensure that contaminated sites are reviewed thoughtfully on a case-by-case basis in a manner protective of present and future generations.

The "Letter of Intent" signed by Pete Maggiore, Secretary, the New Mexico Environment Department, states that when "clean up" of DOE waste sites is completed it will result in:

1. Reduced risk from New Mexico's legacy waste sites;
2. Allowing the NNSA to focus on expanding its core national security mission;
3. Support of DOE's mission to expedite transuranic (TRU) waste to the Waste Isolation Pilot Project (WIPP) in Carlsbad, New Mexico;
4. Providing a significant benefit to New Mexico and the nation by reducing the potential environmental, public, and worker health and security risks posed by TRU.

Additionally, the agreement:

1. Defines likely future land use scenarios and associated clean up standards;
2. Supports necessary actions to ensure long-term effectiveness of institutional controls;
3. Supports predictive modeling;
4. Supports implementation of a Long-Term Environmental Stewardship (LTES) program working with regulators and surrounding communities;
5. Shortens review periods between regulators and project execution;
6. Seeks additional state funding;
7. Accelerates risk reduction and completion of environmental "clean up."

Like many other state agencies the mission of the New Mexico Environment Department is to protect human health and the environment. After thoroughly examining these goals and objectives many concerns have risen regarding the intent of the DOE and the state agencies that have signed onto to this plan and what this plan, if implemented, holds regarding safety and welfare of the public.

#### WHAT DOES THE NATIONAL ACADEMY SAY?

Human beings are not capable of maintaining anything over the long-term. The National Academy of Sciences (NAS) has criticized DOE's long-term environmental stewardship program (LTES). In its 2000 report: "Long-Term Institutional Management of U.S./DOE Legacy Waste Sites," the NAS states that DOE's LTES program will be "difficult, if not impossible, to achieve . . . and residual wastes will remain posing a threat to human health and the environment" (National Academies, ix, 1).

The NAS study cites many examples of failed stewardship at DOE sites within the first 5 years. Signs, fences, zoning restrictions and other physical and institutional “controls” designed as alternatives proposed by the DOE to keep people from getting exposed to waste will not outlast the long-lived radioactive materials buried at these sites.

Research conducted by the Institute for Energy and Environmental Research (IEER) shows that clean up of these waste sites to standards reflective of a “subsistence farmer scenario” will “ensure the health of future generations, of land and water resources, and of ecosystems thousands of years into the future” (Science for Democratic Action, p. 1). The subsistence farmer scenario makes scientific sense as it minimizes risk and reduces the large number of uncertainties associated with assessing the impact of contamination at these sites on future populations. This scenario also removes any additional elements that may contribute to breakdown of the system, such as a designated usage for interim status of a site.

However, the DOE has chosen the cheapest way out to deal with these waste sites. Under DOE’s accelerated clean up the majority of legacy sites will be covered over, and monitored under LTES. In reality, “accelerated clean up” is not accelerated clean up at all, but rather accelerated “cover up.” For example, clean up at Sandia National Laboratories, New Mexico (SNL/NM) has been “accelerated” from 2009 to 2006, and accelerated clean up of literally hundreds of waste sites at Los Alamos National Laboratory, our state’s most contaminated DOE facility, will be completed by 2015. Neither time table leaves room for any true remediation of waste sites at these two facilities. At Los Alamos radioactive waste continues to be buried in unlined pits and trenches, has contaminated the ground water and surface waters, including the Rio Grande, Albuquerque’s future source of drinking water.

#### CASE STUDY: ACCELERATED COVER UP

The DOE is doing all it can to relax clean up standards not only at waste sites located outside of urban areas (which may well be future locations for towns and cities), but also at sites presently located in or very close to populated, urban areas. The Mixed Waste Landfill (MWL) is one such site located at Sandia National Laboratories, New Mexico (SNL/NM). The 2.6-acre landfill contains both radioactive and hazardous waste in unlined pits and trenches situated over Albuquerque’s sole source aquifer. Several other waste sites adjacent to the MWL at SNL/NM have already released contaminants to the aquifer. Like most legacy sites the inventory of the MWL is poor; however, the long-lived radioactive waste and large quantities of lead will be hazardous essentially forever. Despite outcries from communities the DOE intent is to cap the landfill and implement LTES.

#### RELAXING CLEAN UP STANDARDS, SPENDING LESS MONEY, TAKING LESS RESPONSIBILITY

If implemented as planned DOE legacy waste sites, such as the Mixed Waste Landfill, will fall victim to this plan. The landfill is located on Albuquerque’s East Mesa, an area predicted to be at the top of the list in terms of future development. In less than 10 years a community (Mesa del Sol) consisting of hundreds of families will be living next to this radioactive pit of wastes with a nature park located just over a short mile from the waste site. However, to save money, and “reduce risk to the public” the DOE has chosen not to clean this site up, instead placing it under LTES *with no financial assurance mechanism to guarantee long-term monitoring, maintenance and any other post closure activities associated with this site.* As members of the public, as tax payers and recipients of the potential future effects associated with this waste, we are supposed to believe that DOE has our best interests at heart. We are supposed to believe their misleading statements about the landfill over the last two years and believe their “accelerated clean up” is truly clean up. We are supposed to believe this is a credible program though it lacks financial assurances necessary to monitor these sites even for a short while in the grand scheme of time. We are supposed to accept without question, verbal assurances from the nation’s biggest polluter that “long-term protection of human health and the environment” is its primary mission while continuing to spend trillions manufacturing more nuclear weapons, while at the same time proving it is incapable of cleaning up its waste while continuing to generate more waste.

While keeping this mission in mind, the DOE is already attempting to pawn off many of its waste sites destined for LTES to other federal agencies to manage. These agencies lack the necessary budgets and technical expertise crucial to maintaining these sites over the long-term. Other ways for the DOE to save money while increasing risk to the public is through the designation of contaminated lands to the status of national wildlife refuge areas. The DOE has a host of arguments why this is a good plan. *However, this plan does nothing to protect human populations that*

*may be flourishing in these areas in the future.* A wildlife refuge designation cannot and should not be used to assess how these contaminated areas will be used centuries from now. Furthermore, the proposals “have not taken into account the long-term evolutionary impacts on wildlife, increases in organic matter on site that may result in a more rapid radionuclide migration, and complex pathways to humans due to the interaction of wildlife and people in a densely populated area (Science for Democratic Action, p.5).

#### RESULTS FROM INDEPENDENT PEER REVIEWS

Independent peer review is the cornerstone on which sound science is built. It is the universally-accepted process accepted by the scientific community as a means to ensure that intrinsic biases are filtered out and sound science prevails. Our organization has commissioned a number of independent reviews on the work performed by SNL/NM at the MWL. An independent peer review of SNL/NM’s risk assessment of tile MWL pointed to several deficiencies, and as a result SNL pulled their risk assessment from state-review. Please see these independent peer reviews on our website at: [www.radfreenm.org](http://www.radfreenm.org). It is our position that the assessments of potential risks associated with this particular landfill, touted as a “flagship” site for implementation of LTES are based on agency policy instead of sound science. We have requested the DOE provide funding for an independent peer review of the Corrective Measures Study for the MWL ordered by the New Mexico Environment Department, and currently await a reply from John Arthur, Manager, DOE Albuquerque Operations Office.

#### STATE-ISSUED “ENVIRONMENTAL COVENANTS”

Another issue of concern is a state-created “environmental covenants” document. The DOE has stated that these “environmental covenants” represent an essential component in its “accelerated clean up” program. The word, “environmental covenants,” like “long-term environmental stewardship,” implies a “binding and solemn” commitment for long-term protection of the environment. However, used in this sense these terms are simply a bastardization of the true meaning of “protection.” The environmental covenants being created by the state are simply another form of state-sponsored “long-term stewardship” that will likely result in clean up of sites to a lesser standard, such as the “industrial use scenario” standard proposed for the MWL interim designation of a waste site such as industrial land use, recreational use, etc.) resulting in additional increased risk to the public over the long-term.

#### WHO BENEFITS?

The Letter of Intent states that there are many benefits to be obtained from DOE’s “accelerated clean up” program. The primary beneficiaries of this plan is the DOE’s budgetary constraints; those employed by the DOE and its contractors; staff employed by the state who participate in DOE’s LTES meetings; the State of New Mexico, who stands to gain substantial increases in funding from signing onto such a plan; and a few longtime supporters of the DOE. History repeats itself. The real losers on this plan are members of the public who are: 1) unaware of these issues; 2) future generations who will ultimately bear the health consequences and financial responsibilities for this waste.

#### RISK REDUCTION?

The “Letter of Intent” signed by Pete Maggiore, Secretary, the New Mexico Environment Department, states that when “clean up” is completed it will result in:

##### *1) Reduced Risk From New Mexico’s Legacy Waste Sites*

The DOE states that it is committed to delivering “risk reduction at a reasonable cost” to American taxpayers. Most Americans - and New Mexicans - are unaware of these issues, even while they live within close proximity to a waste site or in downstream communities located in Los Alamos, Santa Fe and Albuquerque. The DOE maintains “accelerated clean up and LTS” will result in “reduced risk to the public.” There are absolutely no studies that show the DOE’s “accelerated clean up” program will result in reduced risk to the public in New Mexico or the nation from legacy waste sites. Reports by the National Academy, independent experts, and others suggest that risk to the public under DOE’s plan will actually increase instead of decrease. The DOE’s “accelerated clean up” and LTES programs are not based on sound science, in fact, they are not science-based at all, but based solely on budgetary constraints.

## FOR REASONS OF NATIONAL SECURITY: A REPEAT OF HISTORY

The “Letter of Intent” signed by Pete Maggiore, Secretary, the New Mexico Environment Department, states that when “clean up” is completed it will result in:

2) *Allowing the NNSA to Focus on Expanding Its Core National Security Mission*

There are distinct similarities between the “expanding core national security mission” of the NNSA and a time in our country’s history during the making of the atomic bomb and subsequent Cold War years. This was a time when the American people were lied to, poisoned, and experimented on. People were put in harm’s way for reasons of “national security.” The ramifications of this policy were not realized until many years later: the government had sold out its own people. The DOE’s “accelerated clean up and long-term environmental stewardship program” has been conceived by the same agency responsible for historically placing members of the public in harm’s way for reasons of national security. However, this time the ramifications associated with DOE’s “accelerated clean up” may not be realized until a much longer time, over the course of several generations, time enough to sufficiently blur the associations between the impacts to human health and environment from dangerous wastes that will remain in-situ, covered over, mismanaged, and forgotten.

## RECOMMENDATIONS

Creation of a new model based on independent sound scientific analysis and public participation through the following:

1. Abandonment of DOE’s current program proposal and its misleading title, “accelerated clean up;”
2. Establishment of a consortium of national experts, independent of the DOE in terms of funding and direction, that would include National Academy of Sciences scientists and engineers, among other national experts charged with thinking “outside the box;” (i.e.), long-term protection of human health and the environment utilizing a number of methods, including excavation of contaminated sites in some cases on a site-by-site basis;
3. Establishment of a consortium of national experts representing a variety of disciplines to study applied technologies for solving the nation’s long-term waste problems based on sound science and reduced risk instead of decision-making guided solely by budgetary constraints;
4. Establishment of a fund for independent peer review activities whereby nongovernmental organizations (NGOs) can apply for third party funding to conduct a range of multidisciplinary studies on waste issues as a means of enhancing the clean up process;
5. In place of the “special interest” citizen groups supported, funded and fed by the DOE to support its “accelerated and long-term stewardship program” as a means of fulfilling its “public involvement” criteria, the establishment of a Congressionally appointed panel composed of citizens who represent affected areas to participate in hearings and discussions, and offer guidance to consortium members from a citizen’s perspective with respect to contaminated sites located near their communities.

Senators, each of you has a choice: to support a plan based on sound science that will result in the protection of the environment and in doing so protection of the long-term health of the American public or acceptance of a cheap substitute under a plan conceived by the agency responsible for creating the waste. Please don’t write us off as many states already have. The power to protect future generations of Americans lies with each of you. Thank you for your consideration in this important matter.

## References:

1. The National Academies. *Long-Term Institutional Management of U.S. Department of Energy Legacy Waste Sites*. Washington: The National Academy of Sciences, 2000.
2. Science for Democratic Action, “Setting Cleanup Standards to Protect Future Generations.” Institute for Energy and Environmental Research, Volume 10: 3, May 2002.

STATEMENT OF JERRY MENINICK, CHAIRMAN, RADIOACTIVE AND HAZARDOUS WASTE  
COMMITTEE, YAKAMA NATION, TOPPENISH, WA

EXECUTIVE SUMMARY

The United States Department of Energy "Performance Management Plan for the Accelerated Cleanup of the Hanford Site" (Hanford AC Plan) consists of three primary elements:

1. A fundamental redirection in the Federal government's policy away from nuclear waste cleanup and towards on-site disposal or abandonment of the most dangerous and long-lived toxic waste in existence.
2. A massive reduction in the Federal commitment to restore contaminated natural resources, allowing a major reduction in the projected cleanup budget.
3. A blunt carrot-and-stick incentive program for 'accelerated cleanup': near-term budget increases for sites which adopt the plan, budget cuts for those which do not.

The stated objective of the Hanford AC Plan is reasonable: finish cleanup sooner to reduce costs. The U.S. Department of Energy (DOE) has documented in great detail the primary cause of inflated nuclear cleanup budgets: poor contract management and a lack of cleanup endpoints. The principal findings of the six month DOE "Top-to-Bottom Review" (February, 2002) confirms this conclusion.

Rather than focus on achieving clear cleanup targets through greater efficiency, however, the Hanford AC Plan achieves paper cost reduction by simply doing less cleanup. The plan describes two principal means for reducing costs:

- "Reclassifying" wastes, which allow them to be processed and buried near the surface without the permanent barriers required by Federal law.
- Simply leaving immense quantities of waste in place and restricting access to large tracts of land and natural resources, often permanently, under the nuclear "stewardship" policy.

The Hanford AC Plan is a short-sighted effort which derails the cleanup program in favor of a 'quick-fix.' Cost efficiency for nuclear waste cleanup is not only desirable, but necessary. Ultimately, however, even greater costs will be incurred if this approach is adopted, as waste is allowed to migrate and contaminate larger areas, threatening health.

There are narrow elements within the plan which are reasonable, and they involve immediately stabilizing waste which poses an imminent hazard. However, there is support in neither policy nor law, including Treaty law, to support creation of the world's first major sacrifice zone near one of the great natural resources of the world, the Columbia River. Most of the Hanford Site has been now designated a National Monument as a result of its exceptional natural resources, and it is of immeasurable significance and value to the Yakama Nation as a reserve on which to practice Treaty rights guaranteed in the Treaty of 1855 as the land is restored.

In order to assist in the immense undertaking of restoring the Hanford land and resources, the Hanford AC Plan must address the human rights and needs of real people. Following some four decades of secrecy, and at times deception, the Federal government made a partial admission about the cost of its weapons program at Hanford. In 1986, the Department of Energy released thousands of pages of formerly secret documents which detailed the exposure of unknowing citizens to radiation from Hanford.

The cost of these actions have not been born evenly. Yakama Tribal members practicing Treaty rights maintained a diet and lifestyle which exposed them to severe levels of risk from Hanford emissions. The Federal government has yet to account for the harm done to these people. Instead, the government has budgeted tens of millions of dollars to pay attorney fees to defend corporations which operated Hanford on behalf of the government, funds which are still used to fight claims for injury to people and to deny or minimize harm done in the past. It will be difficult for Tribal people to accept cleanup measures deemed to be protective of Tribal health until the time that the Federal government makes a full and honest admission concerning past harm done to Tribal people in the name of national security.

At the level of government-to-government relations, much work remains to be accomplished. The Yakama Nation is a sovereign government, as described in greater detail below. While the Department of Energy claims to 'recognize' and 'honor' and 'respect' Yakama Treaty rights, it has yet to achieve the truthful admission that compliance with Treaty rights is a legal requirement for Hanford cleanup.

DOE achieved a landmark as an agency when it recognized that it was subject to external regulatory authority. It now commits routinely to achieve compliance with the Tri-Party Agreement, a legal vehicle subservient to a Treaty with the



United States government which must be signed by the President and ratified by the Senate under the rule of the Constitution. But in 2002, rather than commit to Treaty compliance, the Hanford AC Plan commits to

“considering . . . values of area Tribal Nations and stakeholders” and to “maintain productive relationships with Tribal Nations and stakeholders.”

DOE fulfillment of its trust obligations to the Yakama Nation, its obligations to consultation, and its legal mandate to achieve Treaty compliance would serve as a tremendous achievement for DOE with unknown and potentially positive benefits. Conversely, control of the Yakama Nation through the funding process to satisfy implementation of the Accelerated Cleanup plan is unacceptable, and diminishes the stature and potential of the Department of Energy.

#### CHRONOLOGY OF DEVELOPMENT OF THE HANFORD ACCELERATED CLEANUP PLAN

July 31, 2001

On order of Secretary of Energy Spencer Abraham, Assistant Secretary Jessie Roberson initiates a “Top-to-Bottom Review” of the Environmental Management Program.

August, 21 2001

Secretary Abraham Reaffirms the Department of Energy’s Government-to-Government Relations with American Indian Tribal Governments.

November 19, 2001

Memorandum from Asst. Sec. Jessie Roberson instructs DOE EM to cut \$100 billion from the cleanup program and “eliminate the need to process high level liquid wastes.”

January 31, 2002

Secretary Abraham announces a \$6.7 billion FY 2003 DOE budget, which includes an \$800 million “expedited cleanup account” for sites which adopt accelerated cleanup.

February 4, 2002

Top-to-Bottom Review of the DOE Environmental Management Program is released: principal finding is that contract management must be improved to reduce cleanup costs.

February, 2002

Secretary Abraham and Under Secretary of Energy Robert Card meet with Washington Governor Locke and other State officials in a series of meetings to discuss the accelerated cleanup plan, the expedited cleanup account, and revisions to the Tri-Party Agreement.

March 5, 2002

Letter of intent signed by Department of Energy, State of Washington, and U.S. Environmental Protection Agency to accelerate Hanford Site cleanup and provide \$433 million from the DOE expedited cleanup account to Hanford for FY 2003.

April 8, 2002

The State of Washington provides comments to DOE on the March 28, 2002 version of the draft Hanford Accelerated Cleanup plan.

May 1, 2002

The draft “Performance Management Plan for the Accelerated Cleanup of the Hanford Site” is released to the public.

June 26, 2002

Government-to-government consultation with the Yakama Nation has not occurred, to date, on the Hanford Accelerated Cleanup Plan.

July 1, 2002

Comment deadline for the Hanford Accelerated Cleanup Plan.

August 1, 2002

Deadline for completion of the final Hanford Accelerated Cleanup Plan.

FEDERAL TRUST OBLIGATIONS TO THE YAKAMA NATION AND  
CONSULTATION REQUIREMENTS

“Tribes are sovereign governments. Before Europeans first sailed to America, the tribes were already sovereign by nature. They conducted their own affairs and depended upon no other source of power to uphold their acts of government. The U.S. Constitution recognizes four sovereign governmental entities: the Federal government, state governments, American Indian tribal governments, and foreign nations. American Indian tribes, though uprooted and removed to reservations, retain inherent sovereignty. The United States did not grant tribal rights, rather, tribes reserved such rights as part of their preexisting status as sovereign nations.

“Tribes are not treated as mere administrative extensions of federal programs, but as separate governments. They are sovereign entities, recognized in the U.S. Constitution with rights and privileges negotiated in treaties and defined in case law. Interaction with federally recognized tribes must be conducted on a government-to-government basis. This is in addition to and goes beyond any public involvement and community outreach efforts.

“Government-to-government consultation occurs between federal agencies and elected tribal leaders.

“DOE’s trust responsibilities include:

“Consulting, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments.

and

“Protecting ‘reserved’ rights (such as hunting and fishing rights that were specified in treaties as retained or reserved even though the lands are not part of the reservation).”

(From “A Guide for DOE Employees, Working with Indian Tribal Nations,” DOE/EM0571, December, 2000)

Despite these requirements for DOE government-to-government consultation on matters which affect the Yakama Nation tribal government, DOE failed to consult with the YN during development of the Hanford accelerated cleanup plan. Though this plan materially affects Yakama Nation Treaty rights, consideration of such rights through consultation with elected Tribal officials were omitted entirely during this process.

GENERAL COMMENTS

The Draft “Performance Management Plan for the Accelerated Cleanup” of the Hanford Site, May, 2002” (Hanford AC Plan) is designed to reduce costs of environmental restoration at Hanford. The Hanford Nuclear site, located on Yakama Nation (YN) ceded land, is the most heavily contaminated site in the Western Hemisphere, and the largest Superfund site in the United States.

Yakama Nation Treaty rights are affected by the Hanford AC Plan. Though the U.S. Department of Energy (DOE) developed the Draft Hanford AC Plan over several months, and consulted extensively with the State of Washington during its development, it has yet to consult with the Yakama Nation on the Plan at the time of these comments. (See Chronology above.)

United States law regarding environmental protection and restoration has evolved over the past several decades. A number of Federal statutes have been enacted to protect natural resources and human health, including the Clean Air Act, Clean Water Act, Nuclear Waste Policy Act, Endangered Species Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. The trend over decades has been towards increasing levels of protection for humans and other biota from toxic contaminants, often with the explicit goal of protecting human health and the environment and restoring damaged natural resources.

The Treaty of 1855 between the Confederated Tribes and Bands of the Yakama Nation and the United States contains provisions which guarantee perpetual rights, including off reservation rights. Such rights are unequivocal and permanent absent a specific Act of Congress to the contrary.

The presumption cannot be made that DOE intends to fulfill its trust obligations to the YN, which includes conducting consultation with the YN on the Hanford AC Plan.

Absent such fulfillment of its trust obligations, the following general comments are provided on the Plan, as well as more specific comments as denoted below.

While the Draft AC plan states environmental restoration goals for Hanford will be achieved at less cost by accelerating cleanup, most of the projected savings arise from simply accomplishing less cleanup.

The Hanford AC Plan has a number of deficiencies:

1. While called the Performance Management Plan for *Accelerated Cleanup*, this initiative is actually an *Accelerated Closure* plan. (In fact, the March 28, 2002 draft of the plan was called the “Hanford Site Accelerated Closure Plan”) As a major reversal in Federal policy, the current plan calls for closure of the Hanford cleanup program. This would be accomplished through disposal of enormous quantities of toxic waste in the near surface environment on YN ceded land. In cases where known waste sites are difficult to clean up, the Hanford AC plan calls for simply leaving waste in place rather than isolating it from humans and the environment. The effect of this policy involves deferring cleanup costs to the future and escalating those costs—inevitably, waste left in place will migrate, spread over greater areas, and harm humans and the environment.

2. DOE has documented in detail the primary reason for its excessive and steadily inflating costs for the nuclear waste cleanup program: contractor inefficiencies, incentives by contractors to inflate costs, and poor contract management. This problem arises from a basic institutional flaw in DOE whereby contractor management has historically been inverted, and contractors heavily influence policy, budgets, and even management of their own work. This core problem is not addressed in the Hanford AC Plan despite the potential for major cost reductions in the cleanup program—in fact, contractor budgets would significantly increase under the plan over the next several years. The Hanford AC Plan addresses this core problem with the nuclear cleanup mission with vague promises to “improve the quality of our Contract solicitation processes” and “achieve clarity in our contracts with respect to the contract workscope” and “improve our contractor oversight.”

3. Great technical uncertainties exist in the Hanford AC Plan. Rather than address such uncertainties directly, the AC Plan sets fixed cost reduction goals and milestones, and proposes to “backfit” technologies to meet those goals. Though the Plan states that risk reduction will guide cleanup, it omits the most important risk reduction requirements, i.e., characterization of waste and definition of acceptable end-states for cleanup.

4. Significant legal and regulatory problems exist in the AC Plan, and these are documented extensively in the Plan itself under the “Uncertainties” sections of Appendix A. On its face, implementation of the AC Plan would appear to violate a number of Federal statutes.

#### LEGAL AND REGULATORY DEFICIENCIES IN THE HANFORD ACCELERATED CLEANUP PLAN

##### *Yakama Nation Compliance Issues*

1. DOE has failed to meet its most fundamental trust obligation to the Yakama Nation, by failing to consult with the Tribal government on the Hanford AC Plan.

2. DOE has repeatedly committed to achieving compliance with the Treaty of 1855 between the YN and the United States during Hanford cleanup. However, DOE rejects an enforceable agreement with the YN to accomplish compliance, and considers its unilateral actions sufficient to meet its enforceable trust obligations.

3. Treaty compliance has yet to be integrated into requirements for DOE’s Hanford cleanup documents, including the Hanford AC Plan.

4. DOE states that risk reduction will guide cleanup in the AC Plan. However, an omission exists in the Plan with respect to the critical population at risk for cleanup endpoints, i.e., Tribal members. A recent EPA study demonstrated fatal cancer risks of 50 times and greater for Tribal members exercising Treaty fishing rights on the Columbia River, with the greatest risks occurring in the Hanford reach of the river.

5. No consultation has occurred with the YN on DOE’s ‘stewardship’ plans with respect to impacts on YN Treaty rights. Such stewardship plans may involve permanent restriction of Tribal members from access to Treaty guaranteed resources.

##### *General Compliance Issues*

1. The U.S. Department of Energy has undertaken a significant, major federal action in developing this Plan which guides and prescribes uses of federal resources upon which future actions will be based (40 CFR §1508.18 and §1508.27). Therefore, the Plan requires a NEPA analysis.

2. High level waste tank closure alone is a significant, major federal action. The Hanford AC Plan appears to violate the intent of NEPA and ignore past commitments made in past NEPA records of decisions. For example, the TWRS ROD (Federal Register p. 8699) states, “DOE also will prepare appropriate further NEPA doc-

umentation before making decisions on closure of the tank farms. This documentation will address the final disposition of the tanks, associated equipment, soils, and groundwater, and will integrate tank farm closure with tank waste remediation and other remedial action activities.”

3. Tank closure will require a permit from the State of Washington, which regulates 177 underground storage tanks under the authority of RCRA. The Washington Department of Ecology’s authority is limited to the non-radiological fraction of the tank waste. USDOE needs to obtain a Part B permit from Ecology to close the tanks. Therefore, Ecology must perform a SEPA analysis as part of the permit process.

4. Congress created a framework for disposal of high-level waste and commercial spent fuel in the Nuclear Waste Policy Act (NWPA) of 1982. The Hanford AC Plan appears to reject application of the NWPA to Hanford tank waste. DOE is proposing to leave up to 360 m<sup>3</sup> of high level waste in tanks and fill the void with grout or sand, an apparent violation of the NWPA.

5. The Hanford AC Plan alludes to regulatory uncertainties with closing high level tank waste in place. These regulatory uncertainties should be discussed in detail in the final Accelerated Cleanup plan.

6. Hanford high level waste tanks have yet to be fully characterized. Since Federal law specifies disposal requirements based on waste classification, characterization information necessary to classify tank wastes is mandatory.

7. Though the Hanford AC Plan refers to separation of high level tank waste, it does not provide data on the quantities or fractions of waste proposed to be separated for vitrification, processing for on-site disposal, or disposed of in place.

8. Reclassification of HLW and TRU waste through administrative procedures involves an apparent violation of Federal statutes.

9. Disposal of waste in canyon facilities may not meet isolation requirements under Federal law. Such facilities were designed as chemical separations plants, and were not intended to provide permanent barriers to waste migration.

#### TECHNICAL DEFICIENCIES IN THE HANFORD ACCELERATED CLEANUP PLAN

1. The Hanford AC Plan prescribes risk reduction as the technical basis for cleanup. DOE can only address risk reduction if it integrates risk to Tribal members into its risk framework. The AC Plan should describe how DOE proposes to accomplish this analysis.

2. Risk reduction requires waste inventory data and measurable cleanup endpoints. DOE cannot achieve cleanup without this information, and such information should determine final remediation.

3. “Fast-track” development of technologies, operations, and facilities should be abandoned. Careful analysis and comparison of alternative cleanup methods should be made in a transparent manner prior to making cleanup decisions.

4. An analysis of the legal and technical suitability of experimental technologies, including steam-reforming, grouting, bulk vitrification, and fractional crystallization, to specific waste forms and end-states should be conducted prior to application on actual wastes.

#### SUMMARY

The stated objective of the Hanford Accelerated Plan is sensible and timely—speed cleanup of nuclear waste, in order to reduce cleanup costs and restore contaminated natural resources more quickly. However, the means by which the AC Plan proposes to achieve this goal is fatally flawed—cleanup costs are to be reduced primarily by undertaking less cleanup, or in some cases, none at all.

As noted above, the implementation of the AC plan would appear to violate a number of environmental laws, including NEPA, RCRA, and CERCLA. It certainly violates the broad intent of Congress under these laws, to restore contaminated sites in order to protect human health and the environment. Rather, the Hanford AC Plan proposes to create permanent sacrifice zones over large tracts of land, restricting human access as long as fences and barriers remain intact. The exclusion zones proposed by DOE are adjacent to the new Hanford Reach National Monument.

The Yakama Nation believes that creation of such sacrifice zones would also undermine the Treaty of 1855 between the Yakama Nation and the United States. Under the U.S. Constitution, only a specific action of Congress can abrogate Treaty rights. DOE’s plan for Hanford would result in unilateral abrogation of those rights, because access to ancestral land and resources would be permanently prohibited.

The fundamental concern for the Yakama Nation is whether DOE has authority to abrogate or diminish Treaty rights on ceded land by abandoning toxic waste on that land. The Yakama Nation retains rights to hunt and gather food on the Han-

ford land, in addition to fishing at all usual and accustomed places. Cleanup actions must comply with the Treaty, to restore and protect such resources for consumption, absent some specific act of Congress to the contrary.

DOE argues that Federal statutes allow for permanent exclusion zones, where access may be prohibited through deed restrictions, and that Treaty rights may be suspended or eliminated in those exclusion zones. Aside from the apparent violation of Yakama Treaty rights, the obvious threat to the Yakama Nation is that nuclear waste will pose health threats to Tribal members and risks to the environment far beyond the demise of deed restrictions and temporary barriers.

DOE has lost sight of its own findings in developing the Hanford Accelerated Cleanup plan—namely, that cost efficiencies for the nuclear waste cleanup program can only be achieved by reforming its contractor management system. This was the primary finding in the “Top-to-Bottom” review of the DOE Environmental Management program, which was meant to be the basis for the accelerated cleanup initiative. Rather than focus on this urgently needed reform, however, DOE is simply proposing to perform less cleanup to cut costs.

#### PROPOSED LANGUAGE FOR THE FINAL HANFORD ACCELERATED PLAN

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“We are committed to use the processes and cleanup objectives within the Tri-Party (TPA) to deploy this plan. We are committed to meet our enforceable trust obligations to Indian Nations and achieve Treaty compliance during cleanup actions.”

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“Finally, we must establish risk exposure scenarios considering future land uses, including Tribal Treaty use scenarios, and the values of area Tribal Nations and stakeholders.”

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“Accelerating this work while achieving Treaty compliance is a priority for Tribal Nations.”